



# **Green Hill School**

## **Baker North Cottage Predesign**

Department of Children, Youth, and Families  
Department of Enterprise Services

DES Project 2020-735

June 2020

Prepared by



Washington State Department of  
**CHILDREN, YOUTH & FAMILIES**



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Images courtesy of DCYF  
2019 JR Capacity Study

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## **1.0 Executive Summary**



## 1.0 Executive Summary

Green Hill School's mission revolves around transforming lives by "creating pathways for self-sufficiency through meaningful partnerships, employment, new opportunities, and effective rehabilitation services". Green Hill has found that "Successful reentry after incarceration is based on a strong continuum of care which includes: Effective evidence based treatment services; efficient case management; comprehensive education; vocation and employment programs; inclusion of family and community-based connections; and a youth voice."

Recent legislature (SB6260 and E2SHB 1646) has passed that will increase the population and housing demands put onto the juvenile justice system. A previous population study performed in January of 2019 identified increased population expectations of 125-150 additional youth by 2027. Not only does this increase the capacity needs, but also increases the age of youth in the DCYF system from 21 to 25 years-old. This study focused on increasing capacity specifically for the older youth at Green Hill School, one of the three existing juvenile detention campuses throughout the state: Echo Glen Children's Center, Green Hill School, and Naselle Youth Camp. Research shows that the rational part of youth brains are not fully developed until the age of 25. With this in mind, these additional youth are best served by these existing facilities that have the greatest existing infrastructure and established programs to meet youth needs most effectively and efficiently.



*"All Washington's children and youth grow up safe and healthy – thriving physically, emotionally, and educationally, nurtured by family and community."*

*DCYF Vision Statement*

*Pictured Above: Mural at Baker South*

*Pictured Below: Exterior of Baker Cottage*



### DCYF Guiding Principles:

- A relentless focus on outcomes for children;
- A commitment to collaboration and transparency;
- A commitment to using data to inform and evaluate reforms, leveraging and aligning existing services with desired child outcomes; and
- A focus on supporting staff as they contribute to the agency's goals and outcomes.



*Pictured Above: Baker Cottage North, Hall*

Per the January study on population projections, there will be an estimated 62 additional youth in the JR system by 2023. The Green Hill School campus is uniquely poised to accept these older 21-25 year old youth. The campus is equipped with existing vocational education programs suited to help youth develop skills to become self-sustaining and contributing members of society. **However, in order to meet capacity needs, the project requires funding this biennium to allow renovation work at Baker North to begin as soon as possible to prepare the building to accept the first transition of the older youth into the juvenile system at this campus. Without renovation, the Cottage will not be able to suitably house this population.**

### RECOMMENDED ACTION

The proposal herein recommends the preferred alternative of a full renovation of 7,800 square feet of the existing 18,200 square foot building and new construction of an additional 500 square feet to provide for the unique programmatic needs of this population. The estimated total project cost of this work is \$6,750,000.

The renovation alternative is specifically planned to serve the needs of the 21-25 year old population and ensure a safe, secure, and operational housing cottage is available for the youth and staff. The program is tailored to creating spaces that allow for the following activities that support the best practices as set forth by the Juvenile Rehabilitation Administration and the mission and values of the Department of Children, Youth and Families and Green Hill School.

- Older youth to visit with family which may include parents, spouses, partners, and children
- Quiet space for independent educational work
- Group activity space for development of meaningful and productive relationships with others
- Opportunities for self-motivated, independent self-care and development of individual schedules and operations
- Area for life skills development including preparing one's own meals

Baker Cottage at Green Hill School is currently only half occupied. The south half was recently renovated to house an acute mental health population. Baker North has remained unoccupied for some time. Currently the security systems, including cameras, lighting controls, door controls, and intercoms are not operational nor are they connected to the building system. If the building is renovated and brought back online, it can house 16 youth, thereby adding to the overall bed capacity and decreasing the shortfall in housing within the DCYF system. The proposed renovations for Baker North provide a safe, normative, and nurturing environment with increased sight lines, security controls installation, fire life

safety provisions, and activity and program space suited to the needs of juvenile rehabilitation today.

The youth to be housed in Baker North are the older males, ages 21-25, who are approaching transition to a community group home. The facility needs to support a less physically confined, more independent living environment for these older more mature youth who will be housed here for an extended period of time. At the same time, more restrictive measures put in place at other housing cottages need to be maintained and provided to allow the flexibility to re-purpose the cottage in the future for more restrictive populations. Baker North is particularly suited to house these youth as it provides mentoring opportunities between the older, more mature youth at the north and the youth on the south. Each half will be operated independently of one another, and free co-mingling will be restricted; however when allowed by staff, the mentorship opportunities are available. By focusing on improving the unoccupied building, DCYF efficiently uses its existing physical resources and avoids costly alternatives, such as new construction, to create space for the increasing population.

The proposed renovations are in keeping with the precedents that have been set with renovations of other cottages on campus. Renovations will add program space to support the population increase. The program needs to support a move towards independent living including self-guided programs throughout the day and life skills including preparing one's own meals, building family and community relationships, ability to maintain one's own schedule, and independent education.

## SUMMARY OF PROPOSED PROGRAM & DESIGN RENOVATIONS

### Life Safety & Accessibility

- Existing simplex fire alarm smoke detectors have reached the end of their service life
- Extend and upgrade fire sprinkler system for full coverage of renovations

### Program

- Housing for 16 males in accordance with PREA and ACA guidelines
- Two flexible group activity spaces conducive to the specific needs of the older 21-25 year old population
- Increased sight lines for safety and security

### Systems

- Update door controls, lighting controls, and intercom to provide full functionality through the north half of the cottage
- Bring existing cameras back on-line and add camera locations to increase visibility and safety
- Update mechanical and lighting systems throughout to improve energy efficiency
- Update heating and cooling systems that have reached the end of their useful life and are surpassing capacity

### Interiors

- Normative environments
- Increased durability of finishes and fixtures
- Opportunities to implement independent living techniques while maintaining full safety and security

### Site

- Improvements to exterior recreation area for all-weather use and visitor use



Pictured above: Baker Cottage South group room



Pictured above: Baker Cottage South group room.

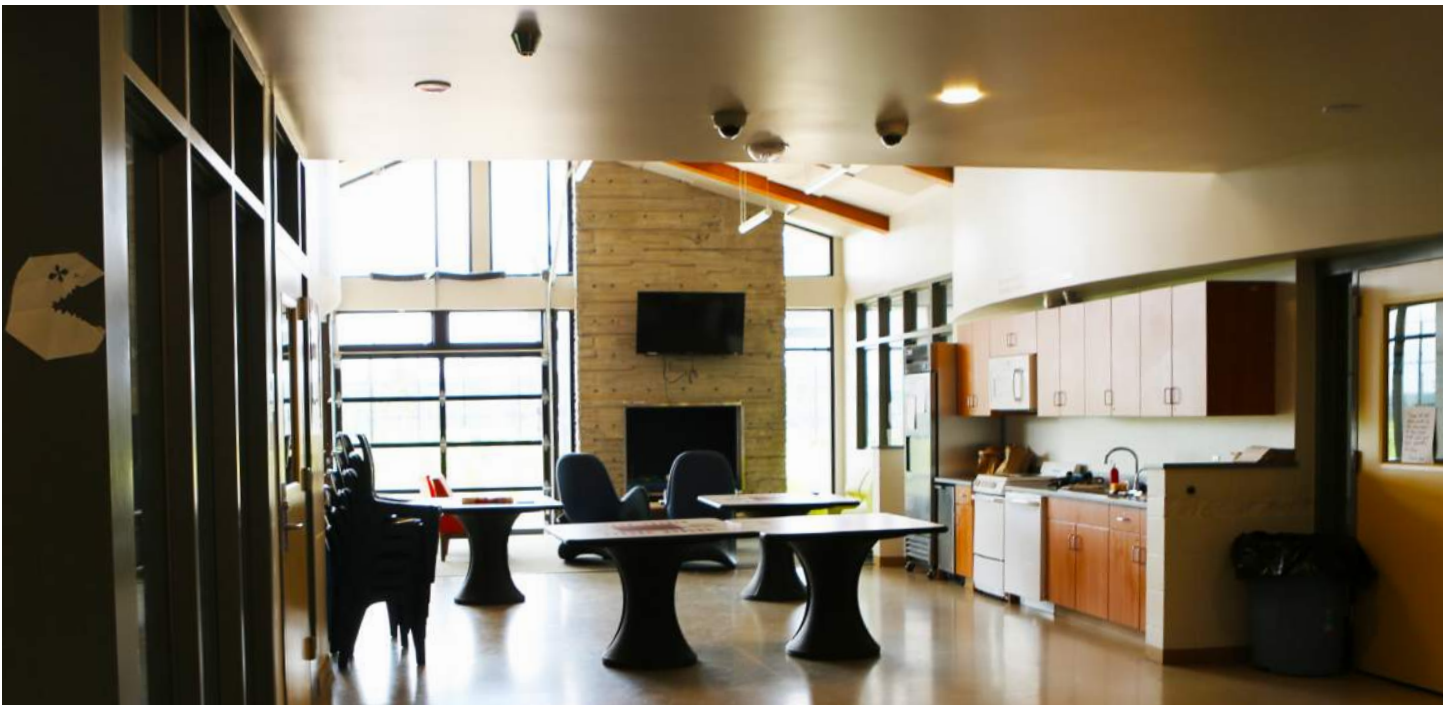
## PREDESIGN PROCESS

Based on discussions with the Office of Financial Management prior to the start of this predesign process, it was agreed only two alternatives would be considered: a no action alternative, and a renovation alternative. This decision is due in part to the previous January 2019 JR capacity study performed in which this cottage at Green Hill had been identified as the prime candidate for housing additional youth most efficiently, effectively, and cost consciously.

The process the team embarked upon included a series of in-depth programming meetings with DES, DCYF, and administrative, facilities, and the program staff at Green Hill School. The meetings focused on discussion of program needs, staff and youth needs, environmental needs, construction quality needs, existing conditions of the structure, and how the cottage relates to the overall campus. The design team visited the existing unoccupied portion of the cottage to determine its current condition and was able to review original building documentation as well as recent design drawings for the renovation of Baker South that provided a comparison.

## COMMITMENT TO DCYF MISSION

Green Hill School is committed to fulfilling the Department of Youth, Children, and Families' vision, values, and missions. The facility and staff strive to provide a safe and nurturing environment for our state's most at-risk youth population. Within the agency, the Juvenile Rehabilitation Administration pushes towards rehabilitation by supporting youth educationally, emotionally, physically, and mentally. Through evidence-based research methods, these older youth are being prepared to transition to community group home environments which provide the next transitional step to re-entry into the community. The Baker North Cottage renovation upholds these goals by providing a space that allows youth to develop a foundation to grow skill sets and tools to avoid recidivism and instead succeed in becoming contributing members in society.



*Pictured above: Baker Cottage South, dayroom*



## **2.0 Problem Statement**



## 2.0 Problem Statement

### 2.A Problem, Opportunity, and Program Requirements

Identify the problem, opportunity or program requirement that the project addresses and how it will be accomplished

Baker North Cottage is proposed to be renovated to a 16-bed housing unit for residents in Juvenile Rehabilitation (JR) custody on the Green Hill campus. Baker South was recently renovated into a 16 bed acute mental health unit to serve male juveniles at Green Hill School, however Baker North was not renovated at that time. A major renovation and remodel to Baker North will address an impending shortage of beds within the Juvenile Justice system, and a need for age-appropriate programs for an older resident population. **Legislation passed in 2018 and 2019 extends the age range for juveniles placed in JR facilities up to age twenty-five. This change creates a need for housing, programs, and treatment support beyond what the JR facility inventory currently can support.** To meet the timeline of the implementation of this legislation, design and construction of the expanded capacity needs to begin within the 2021-2023 biennium.

Baker North was decommissioned some time ago. Renovations to Baker South in the facility included upgrades to all security electronics systems and renovating the south portion to support current programmatic and regulatory guidelines. Baker North was not part of the scope at that time and requires similar upgrades to meet the current needs as well as to bring the security electronic systems back online. Capital investment in Baker will preserve an existing Agency asset within an established campus, which is the preferred option over building new construction. A major renovation will update the facility to best practice standards for juvenile detention and provide the necessary environment to deliver treatment, care, and rehabilitation needs to the residents to prepare the youth for re-entry into the community.

Expanded housing capacity for the older and longer-term male residents resulting from the legislative changes is a good fit for Green Hill campus. As a medium/maximum security facility, the school provides older, male offenders education and vocational training. Educational options include high school diploma, general equivalency diploma (GED), and pre-college courses. Vocational programs include computer technology, light machine fabrication, vehicle maintenance, landscaping, welding and the Juvenile Vocational Industries Program or "JVIP".

*Pictured right top to bottom:*

1. Baker North single sleeping room
2. Baker North C wing
3. Baker North Dayroom



Green Hill School provides Dialectical Behavior Therapy (DBT), Aggression Replacement Training (ART), cultural programming, sex offense specific treatment, and intensive outpatient chemical dependency treatment. Adapting an available housing unit to accommodate an influx of residents at end-of-term or transition phase aligns with their key mission. With an expected increase in both new and older residents, with a population remaining in the system past their 21st birthday, housing capacity at Green Hill School needs to expand to serve this population.

## Background

The Washington State Department of Children, Youth, and Families (DCYF) is the state's newest agency. Governor Inslee signed House Bill 1661 on July 6, 2017, creating DCYF as a cabinet-level agency focused on the well-being of children.

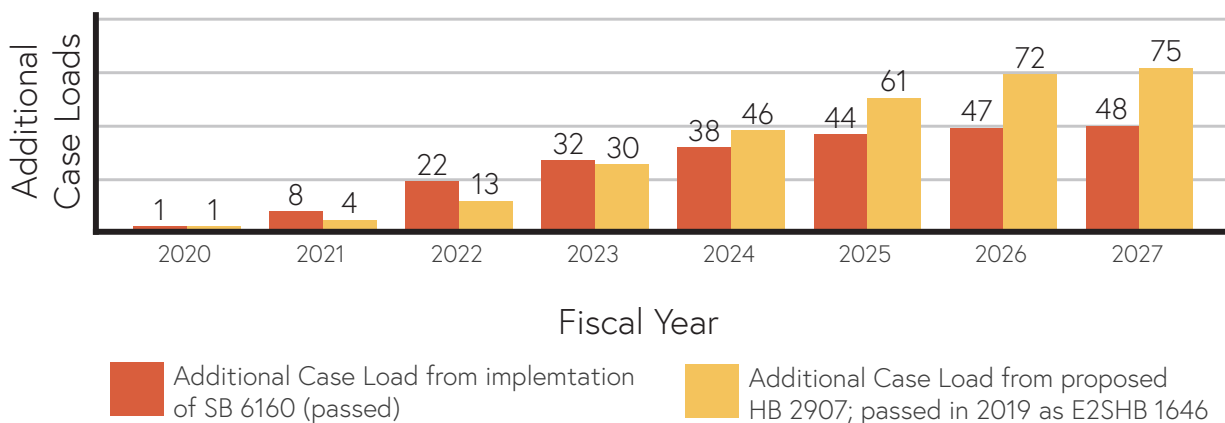
The new agency restructures how the state serves at-risk children and youth, with the goal of producing better outcomes in all Washington communities. Starting in July 2019, DCYF administers programs offered by the Juvenile Rehabilitation division and the Office of Juvenile Justice in Department of SocialSDSHS. Those programs include juvenile rehabilitation institutions, community facilities and parole services. DCYF operates eleven residential facilities within the JR program; three secure campuses and eight community residences.

As part of the 2018 Washington State Legislative session, SB 6160 was passed in both Houses and signed by Governor Jay Inslee on March 22nd. This bill revised the conditions under which a person is subject to exclusive adult jurisdiction when certain crimes were committed and allowed them to remain in the juvenile system. In 2019, E2SHB 1646 passed both houses and was signed into law May 9th, 2019 which extend the age of youth in the juvenile system from 21 to 25 years of age.

One consequence of this legislation was that existing detention facilities within the JR system would need capacity to accommodate offenders in a larger age range and increased numbers of youth. A study published in January 2019 found that the effect of SB 6160's implementation would be an increase of up to 48 additional older youth by 2027 and E2SHB 1646 would result in an additional increase of 75-100 youth by the same date. Combined, this would result in a total increase up to 150 juveniles in the Juvenile Rehabilitation system by 2027. This population includes both juveniles currently nearing the "age-out" of 21 under the current system, as well as those who would have been in the adult corrections system.

## Anticipated Population Projections:

*Information based off of January 2019 Capacity Study by kmd architects and Chinn Planning*



More importantly, the facilities themselves would need a reorganization to provide secure and age-appropriate separation of older youth from younger children. The legislation specifically admonishes that JR take specific precautions to reduce potential risks of victimization and negative influences within its facilities. In addition, research has shown that the rational part of our brains are not fully developed until the age of 25 and therefore youth's brains work differently. As a result, the facilities and programs which are provided require special needs to best serve the population. The different age groups also have age, treatment, and program specific needs as a part of their detention cycle. The influx and growth of the population skewing older drives the need to prepare living spaces with the necessary capacity for those groups.

To achieve the housing capacity needs that the SB6160 and E2SHB 1646 anticipates, DCYF plans to add capacity at the facilities already within their system. The 2019 capacity report identified the existing secure campus facilities of Echo Glen Children's Center, Green Hill School, and Naselle Youth Camp as the preferred sites within the DCYF system to add the needed capacity due to the available infrastructure, vocational training availability, and programmatic capabilities already established to best serve this youth from the Agency's current assets. The study identified Green Hill Baker North as one of the available buildings within the state inventory where capacity can be added on an existing campus. The building also presents the opportunity to adequately separate the older population according to directives in the legislation. Baker is typical of many buildings available within the JR system to house the larger population; it no longer meets life-safety and detention grade standards but can be renovated within the necessary time window to accept the increased population. Rehabilitating existing buildings provides the most viable avenue forward to meet the needs of a growing and age-diverse population. A major renovation now will update the facilities to meet the ACA manual and PREA requirements while refurbishing the buildings with modern, energy efficient HVAC and lighting systems to last another 30 year cycle.

Additionally, Baker provides capacity at a key facility for the programs the legislation affects. Green Hill already hosts key transition programs tailored to the older end of the age range in DCYF custody. Renovating Baker with the expectation that the incoming population will be older will allow the design considerations to tailor the facility to their specific requirements.

*Pictured top: Average Monthly Population Bed Impacts of JR Facilities, Washington Juvenile Rehabilitation Capacity Study, KMD architects and Chinn Planning*  
*Pictured bottom: Baker North recreation area*

#### **Summary of Bill SB6160**

Removes certain crimes from those which are automatically declined to adult court when committed by a juvenile.

<b>Table 3-2</b> <b>Average Monthly Population Bed Impacts - Juvenile Rehabilitation</b> <b>E2SSB 6160.PL - Exclusive Adult Jurisdiction</b> <b>Caseload Forecast Council (March 8, 2018)</b>										
	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
JR AMP	0	0	1	8	22	32	38	44	47	48

Source: Caseload Forecast Council.

#### **Summary of Bill HB2907**

Extends Juvenile Rehabilitation jurisdiction for youth convicted in adult court and adjudicated in juvenile court for serious violent offenses from age 21 to age 25.5.

<b>Table 3-3</b> <b>Average Monthly Population Bed Impacts - Juvenile Rehabilitation</b> <b>HB2907 (Revised) - Confinement in Juvenile Rehabilitation Facilities</b> <b>Caseload Forecast Council (February 22, 2018)</b>										
	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
JR AMP	0	0	1	4	13	30	46	61	72	75

Source: Caseload Forecast Council.



## Problem Statement and Solution

This predesign looks at Baker North Cottage at Green Hill School as one of the candidate facilities for expanding resident housing capacity. The building is over 20 years old and is in need of typical systems upgrades to provide a healthy and energy conscious building system. In addition, programmatic needs and best practices have changed substantially in the past 20 years and the building is no longer providing facilities deemed ideal for juvenile rehabilitation today. The study and alternatives presented consider the rejuvenation of Green Hill Baker North to address the programmatic, statutory, and functional needs emerging within DCYF. A major renovation of the Baker housing unit will provide needed capacity for the expanding population of older juveniles at a facility with programs in place to facilitate transition back to life outside the JR system.

As an asset within the State building inventory, preservation measures would address the multiple deficiencies under current best practices and improve the energy performance as required by the state. Updates to crucial security and life safety systems in the building will enhance the ability of DCYF staff to administer treatment and care to the juveniles in confinement.

This housing unit was built under a different set of rules, codes and standards than current housing units. It lacks the anti-ligature and other safety features designed to prevent self-harm by residents. The current layout does not meet several current American Correctional Association (ACA) or Prison Rape Elimination Act (PREA) guidelines for detention facilities including single occupancy sleeping quarters, 1:8 ratio units for supervision, clear lines of sight, and separation of staff and residents.

The building envelope consists of a concrete masonry unit (CMU) structure and single pane aluminum frame windows. All of the major building systems are beyond service life and will need replacement. Housing units in inefficient and drafty spaces create adverse health responses and foster mold and bacteria growth. The proposed renovation would include HVAC systems and controls with ventilation, and enhanced security features. Resident safety will be improved through upgrades to the fire sprinkler, fire detection and alarm systems, as well as revisited security electronic systems including cameras and door controls, improving safety for staff and youth.

The proposed renovation will provide a safe and secure environment for the youth and staff, will provide increased durability to support the older and stronger population to be housed and will update life, safety, and ADA to meet current codes. Green Hill will continue to provide a facility that meets the current understanding of rehabilitation needs for youth and provide program spaces to support the emotional, mental, educational, and life skills learning to create contributing members to society. Without these renovations, the unoccupied building will not be able to be brought online to house additional youth.

## 2.B Statutory Requirements

Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations. Include anticipated caseload projections (growth or decline) and assumptions, if applicable.

The JR facilities operate under National Standards and Staffing Guidelines including American Correctional Association (ACA), National Commission on Correctional Health Care Standards for Health Services in Juvenile Detention and Confinement Facilities (NCCHC), and Prison Rape Elimination Act (PREA). These and other standards guide the analysis and planning of space within the JR facilities.

### Baker North Requirements for a safe and secure environment:



American Correctional Association (ACA)		
Code	Description	Solution
3-JDF-2C-01	Living units are primarily designed for single occupancy sleeping rooms; multiple occupancy rooms do not exceed 20 percent of the bed capacity of the unit.	room sizes will be based on the number of occupants
3-JDF-2C-03	Each sleeping room has, at a minimum, the following facilities and conditions:	room sizes will be based on the number of occupants
	sanitation facilities that are available 24-hours a day	
	washbasin with hot and cold running water	
	bed and adequate space for storage	
	desk and chair in facilities that do not have scheduled program activities outside youth sleeping rooms for eight hours or more per day.	
	natural light	
	temperatures that are appropriate to the summer and winter comfort zones	
3-JDF-2C-06 (REF. 2-8133)	Juveniles have access to operable showers with temperature-controlled hot and cold running water, at a minimum ratio of one shower for every eight juveniles	Restrooms for every 4 bedrooms
3-JDF-2E-04 (Ref. 2-8152)	There is interview space available in or near the living unit.	Interview room
4-JCF-1A-03	Living units of no more than 16 youth.	This will house 16 youths total
4-JCF-1C-01	Living units are primarily single occupancy. Some degree of privacy and at least 35 unencumbered square feet per occupant. When confinement exceeds 10 hours per day, provide at least 80 square feet per occupant, a bed, a desk, and seating. Adequate storage for clothing and personal belongings. Access to toilets and washbasins with hot and cold running water 24 hours per day without staff assistance.	Each sleeping room will meet the requirements indicated.
4-JCF-1C-03	Adjacent to juvenile sleeping rooms with a minimum of 35 square feet per juvenile. Furniture consistent with the custody level of the juveniles. Sufficient seating and writing surfaces.	Day rooms are large enough to provide adequate seating and space
4-JCF-1C-04:	At least one toilet for every 12 male juveniles. At least one toilet for every eight female juveniles. At least one sink with hot and cold running water for every 12 juveniles. At least one shower for every eight juveniles.	Multiple restrooms have been provided to meet this requirement
Prison Rape Elimination Act (PREA)		
Code	Description	Solution
115.322	The agency shall ensure that each facility it operates shall develop, implement, and document a staffing plan that provides for adequate levels of staffing, and, where applicable, video monitoring, to protect residents against sexual abuse.	Minimize blind spots in the building layout. Provide windows for visibility. Provide video monitoring capability
115.316	The agency shall take appropriate steps to ensure that residents with disabilities have an equal opportunity to participate in or benefit from all aspects of the agency's efforts to prevent, detect, and respond to sexual abuse and sexual harassment.	Minimize blind spots and allow for accessible areas for those with limited mobility
115.318	...in planning any substantial expansion or modification of existing facilities, the agency shall consider the effect of the design, acquisition, expansion, or modification upon the agency's ability to protect residents from sexual abuse.	Renovation will consider all PREA requirements
National Commission on Correctional Health and Care Standards for Health Services in Juvenile Detention and Confinement Facilities (NCCHC)		
Code	Description	Solution
Y-17 Communicable Disease Prevention	Isolation procedures for juveniles with a communicable disease should meet the following requirements: Where possible, the juvenile is placed in a room without a roommate. The room should be equipped with a private toilet, hand washing facility, dispenser of soap, and single-service towels.	Minimum of 1 wet sleeping room is available at the facility
Y-55 Exercise	Daily exercise should take place outside where possible.	Exterior recreation space provided



**Vision:**

All Washington's Children and youth grow up safe and healthy - thriving physically, emotionally and educationally, nurtured by family and community.

**Mission:**

Protect children and strengthen families so they flourish

**Values:**

- Inclusion
- Respect
- Integrity
- Compassion
- Transparency

## 2.C Connection to DCYF's Mission, Goals, and Objectives

Explain the connection between the agency's mission, goals and objectives; statutory requirements; and the problem, opportunity or program requirements.

DCYF's Juvenile Rehabilitation (JR) serves Washington state's highest-risk youth. Youth may be committed to JR custody by any county juvenile court. The juvenile courts follow prescribed sentencing guidelines to determine which youth will be committed to JR. These youth typically have committed many lower-level offenses or have committed a serious crime. Providing safe, program-appropriate facilities as an environment to deliver these programs is crucial to accomplishing DCYF's mission.

As a campus already focused on the transition back to life outside of custody, Green Hill is well-suited to expand its mission with an influx of longer-term and older residents. Currently there is a shortage of age-appropriate housing units available for this growing population. This project provides an opportunity to create modern facilities based on the treatment and safety protocols for the residents. DCYF's vision is to enable the emotional and educational growth of the juveniles in their care while preparing youth to become contributing members of society through:

The work recommended by this predesign report will help achieve DCYF's mission and goals:

- **A relentless focus on outcomes for children;**
- **A commitment to collaboration and transparency;**
- **A commitment to using data to inform and evaluate reforms, leveraging and aligning existing services with desired child outcomes;**
- **A focus on supporting staff as they contribute to the agency's goals and outcomes.**

Failure to act now on these needs will leave the DCYF and the JR program with a looming shortage of housing for the incoming population and create unsafe and deficient facilities as the legislation takes effect.



### Protect

via meeting ACA and PREA standards, providing a safe and secure environment, meeting basic life safety needs for both staff and youth



### Create an environment that allows thriving emotionally and physically

add spaces to create meaningful positive human interactions including life skills teaching, group activity and counseling.



### Provide intrinsic worth, show respect and integrity

via providing nurturing and normative environments for the youth

*Pictured left: Baker North Cottage, Dayroom*

*Pictured top: JR Study Goals for Youth at DCYF Facilities*

## 2.D Solution

Describe in general terms what is needed to solve the problem.

This predesign looks at the needs of DCYF as its population and programs undergo changes driven by legislation within the Juvenile Restitution program. The immediate and urgent need is providing housing units capable of supporting the needs of the population residing there, with age and code-appropriate design, amenities and features. The renovation of Baker North will allow adaptation of an existing facility within the DCYF Green Hill campus to house the anticipated future population growth driven by older residents. The recommended solution achieves many crucial objectives within the legislative intent and the DCYF mission in a timeline that meets the forecasted needs.

## 2.E Prior Planning

Include any relevant history of the project, including previous predesigns or budget funding requests that did not go forward to design or construction.

"Washington Juvenile Rehabilitation - Capacity Study for Juvenile Confinement Facilities Expansion," - kmd architects and Chinn Planning, Inc., January 2019.

"Green Hill School: Baker Living Unit Renovation and Remodel," DCYF Capital Project Request, Report number CPR-CBS002, September 2019.\*

\*This report secured the funding for this predesign study.

Table 3-4 SUMMARY OF WASHINGTON JR AVERAGE DAILY POPULATION FORECAST											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Comment
Current Caseload Population											
> WA Caseload Forecast Council	486	426	429	435	-	-	-	-	-	-	Estimates based on population trends and continued average 2% annual reduction in population.
> Chinn Planning Estimate	-	-	-	-	400	400	380	380	350	350	
SB 6160 Bed Impact (Passed)	0	0	1	8	22	32	38	44	47	48	
<b>Subtotal</b>	<b>486</b>	<b>426</b>	<b>430</b>	<b>443</b>	<b>422</b>	<b>432</b>	<b>418</b>	<b>424</b>	<b>397</b>	<b>398</b>	
HB 2907 Bed Impact (Proposed)	0	0	1	4	13	30	46	61	72	75	If retroactive another 30 to 40 youth added by FY2027.
<b>Total Average Daily Population Forecast</b>	<b>486</b>	<b>426</b>	<b>431</b>	<b>447</b>	<b>435</b>	<b>462</b>	<b>464</b>	<b>485</b>	<b>469</b>	<b>473</b>	<b>Note: 11-14-18 population total was 409.</b>

Source: Washington Caseload Forecast Council and Chinn Planning, Inc.

Pictured top: Average Population Forecast of JR Facilities, Washington Juvenile Rehabilitation Capacity Study, kmd architects and Chinn Planning



## **3.0 Analysis of Alternatives**



## 3.0 Analysis of Alternatives

### 3.A. Summary of Alternatives

Advantages and disadvantages of each alternative. Please include a high-level summary table with your analysis that compares the alternatives, including the anticipated cost for each alternative.

Due to the January 2019 prior capacity study findings preliminarily identifying potential options to house additional youth at Green Hill School, and with prior agreement with the Office of Financial Management, two alternatives were explored in this predesign study. They are Alternative 1: No Action Alternative and Alternative 2: Renovation of Baker North

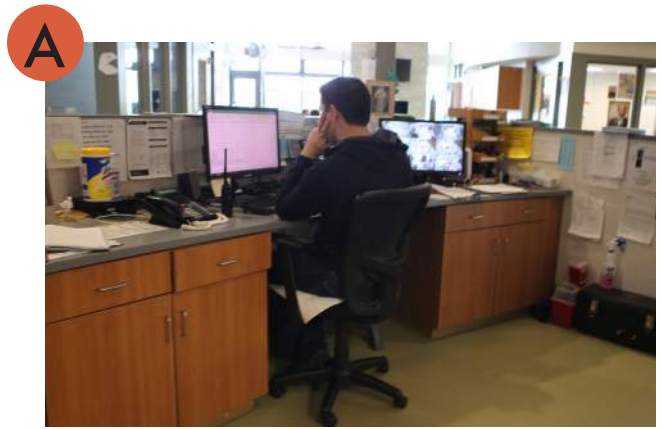
#### 3.A.i. Advantages and Disadvantages of Alternatives

	ADVANTAGES	DISADVANTAGES
Alternate 2: Renovation of Baker Cottage North Total Project Cost: \$6,750,000	<ul style="list-style-type: none"> <li>Reuse existing structure; preserve agency asset.</li> <li>Provide capacity for increased population enacted by SB6160 and E2SHB 1646 legislation.</li> <li>Building is currently half occupied on the south and the north is not occupied therefore no youth will need to be relocated during construction.</li> <li>The renovation of the uninhabited structure already owned by the Agency uses state funds most efficiently.</li> <li>Provide a safe, secure, durable, supportive and normative environment for youth.</li> <li>Provide program space tailored to the 21-25 year old population separated from but capable of priority supervised mentoring opportunities to further agency goals of juvenile rehabilitation, reduction in recidivism, and provide skills sets for youth to become contributing members of society.</li> </ul>	<ul style="list-style-type: none"> <li>There are no measurable disadvantages that have been identified at this time.</li> </ul>
Alternate 1: No Action	<ul style="list-style-type: none"> <li>No Capital Budget Project Funding Request</li> </ul>	<ul style="list-style-type: none"> <li>The security systems will not be functional, not allowing for a safe environment for staff or youth.</li> <li>Youth in need will not have access to a facility equipped for rehabilitation programs suited to the specific needs of this new older population including life-skills and independent living training required to meet the intent of the legislative directive.</li> <li>Cottage will continue to be ill-equipped with unsuitable sight lines to support safety of youth and staff.</li> <li>DCYF missions, values, and goals being strived for across all populations will not be adequately provided for the unique 21-25 year old population.</li> </ul>

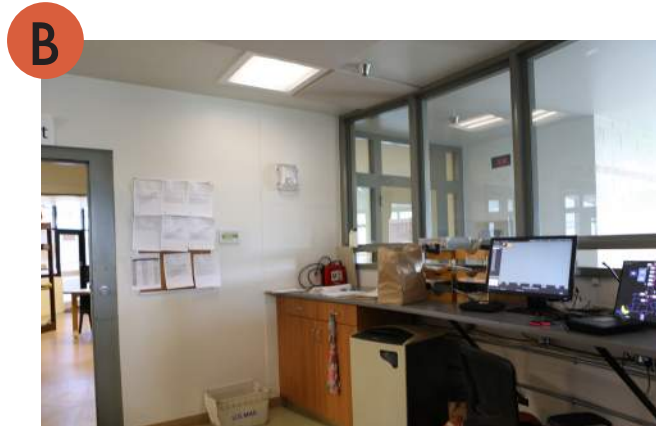
### 3.A.ii. Alternative 1 - No Action

If no action was taken to upgrade Baker North, the facility would not be able to adequately provide the life-skills, transitional, and rehabilitative training that is integral for the older youth (21-25) that Green Hill will shortly be housing.

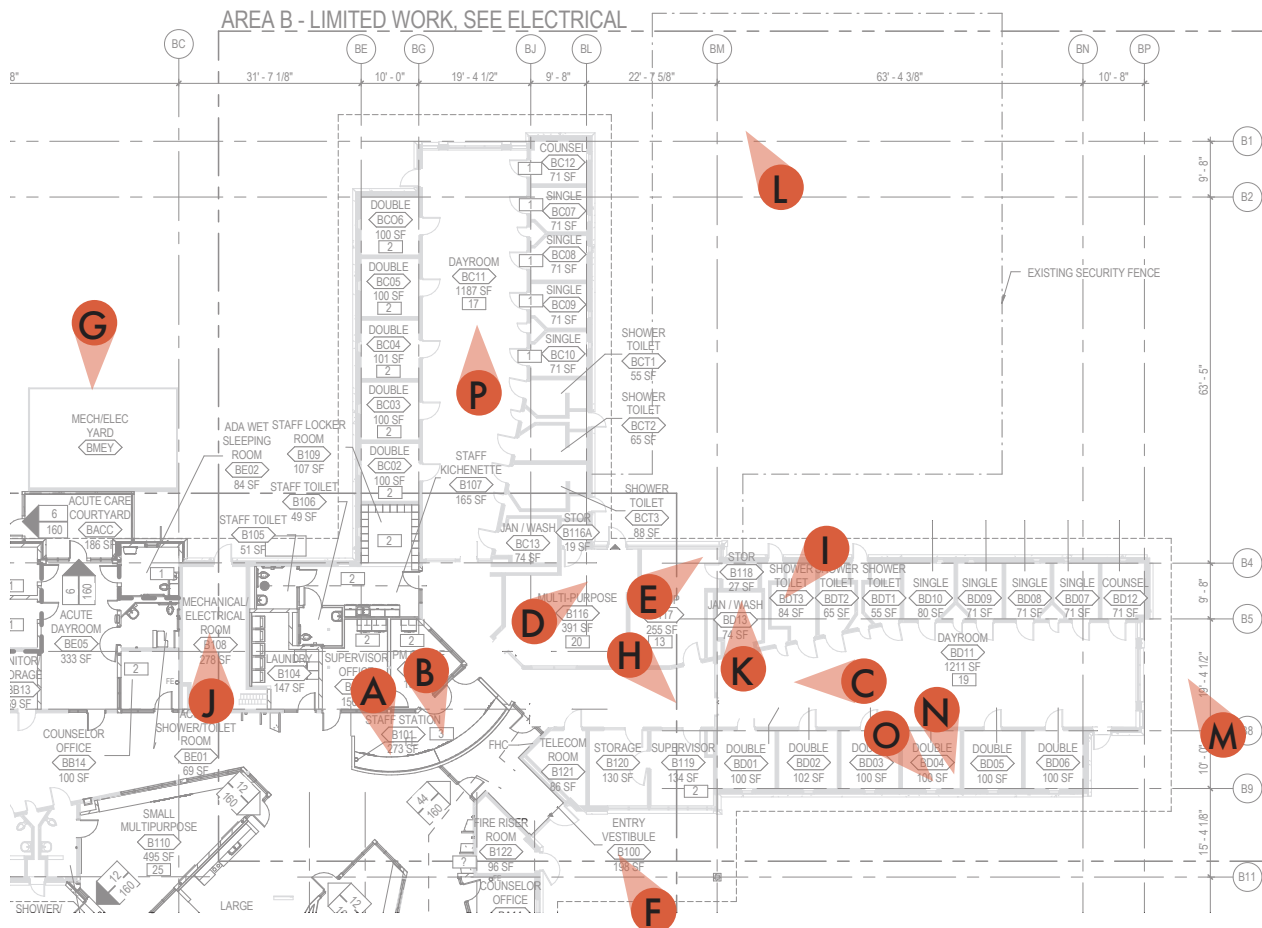
Built in 1998, Baker Cottage is spatially divided into Baker North and South. In 2017, Baker South received major upgrades that reconfigured the central group meeting spaces with systems upgrades and added a flexible, covered outdoor recreation space. Baker North has not received any upgrades and has been vacant for some time. The direction and concepts of juvenile rehabilitation have evolved substantially in the past 25+ years and the building requires renovation to fit the programmatic and environmental needs of today's youth and staff and to prepare these specific youth for re-entry to society as independent, capable adults ready to become contributing members of society.



Baker South staff station



From Staff station looking towards the D wing. There is no sight line down hall.



The required security controls systems including camera systems, door controls, and intercoms, are not operational thereby not providing a safe and secure environment for staff and youth. Existing mechanical systems have reached the end of their useful life and are struggling to keep up with demands. Current layout does not provide clear lines of sight for staff and youth safety and security. The current layout lacks usable program space to provide learning and growth interactions that form the core of the DCYF youth rehabilitation. The needs of the 21-25 year olds coming into the system are different than that of younger youth. These youth in particular are working to develop a skill set that will allow them to re-enter the community with fully independent living, working, and coping skills. Without renovation, Baker North will not be suitable to house the needs of this older youth entering the juvenile rehabilitation system and DCYF will be unable to meet the capacity counts forecasted in the population projections.

#### BUILDING PROGRAM AND FUNCTION:

- The existing staff areas are not adequate to support DCYF programming and do not provide clear lines of sight throughout the facility.
- There is not a functional staff control station to monitor or operate cameras, door, intercom, or lighting controls for the North half of Baker; controls only serve the South half.
- Lines of sight from the Staff station do not provide visibility to the North half.
- Sleeping rooms and common areas do not support the life skills, independent living needs required for education and training of youth towards transitional housing.
- The interior environment is not conducive to the DCYF mission and principles of commitment to supporting staff and providing the values of respect, compassion and integrity to support the mental and emotional growth of the youth and reinforce their intrinsic personal worth.
- Equipment, hardware, and fixtures have been borrowed from Baker North to serve other cottages on campus.
- The existing multipurpose area layout is outdated and does not provide adequate space for group and staff interaction that support the DCYF mission of transitional housing to prepare youths for a less restrictive, more independent living environment.

C



*Looking toward staff station from D wing. No vision directly to station.*

D



*Small, dated group room with little visibility.*

E



*Small, dated group room with little visibility.*

F



*Entrance to vestibule to Baker Cottage*

## SYSTEMS

- Current HVAC heating and cooling systems are functional but inefficient and not connected to the campus control system.
  - The existing air handling units are in fair condition and can be reused but the interior motors and controls require replacement and have reached the end of their useful life.
  - The existing ductwork is inefficiently zoned. The current HVAC chiller for North and South is located in South and does not have capacity to service North. A separate chiller is required.
  - Restroom exhaust fans need replacement.
  - Update heating and cooling systems that have reached the end of their useful life and are surpassing capacity
- Existing plumbing is functioning but will need to be reconfigured for space alterations. The existing hot water heat exchanger needs replacement.
- None of the sleeping rooms have fully functional power, door controls, or light controls and need upgrading.
- Update door controls, lighting controls, and intercom to provide full functionality through the north half of the cottage and to meet security needs of older population.
- Existing intercom and security camera system is not functional and is inadequate and requires upgrades to match Baker South.

G



Exterior mechanical and electrical equipment that are in fair condition.

H



Air handling units in Attic.

I



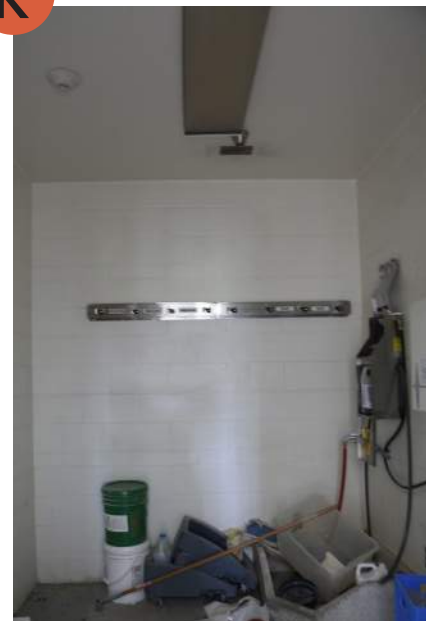
Restroom fixtures are functional but are not anti-ligature.

J



Existing electrical and low voltage telecom size is not adequate for both south and north.

K



Laundry room is functional but has not been used since it was last occupied.

L



Exterior Recreation area.

- Bring existing cameras back on-line and add camera locations to increase visibility and safety
- The plumbing fixtures are not all anti-ligature. Many are missing components that were purposed for the Baker South remodel.
- There are not enough cold water zone shut-off valves, and the valves are not all ball-type so they are anticipated to not hold water from flowing.
- The existing 22-year old domestic hot water heat exchanger is at the end of its service life (20 years are expected). The 22-year old recirculation pump is past the end of its service life. (15 years are expected)
- The existing HVAC zoning is poor (one temperature zone for each of the two wings) and comfort suffers. Units are single speed.
- The existing 22-year old exhaust fans are nearing the end of their service life (25 years are expected).
- HVAC unit motors and controls have reached the end of their useful life and require replacement.
- Cooling capacity is not sufficient to serve both occupied halves of the cottage
- Receptacles are not tamper resistant, and with their age the tension in the swipes for retaining plugs securely is diminished which could lead to potential life safety issues and shock hazards.
- No arc fault breakers are installed to protect the sleeping areas from this fire causing potential.

M



Exterior of building is in good condition.

N



Sleeping room with dated furniture.

O



Sleeping room with dated furniture.

P



View down Wing C without furniture

- The lighting is comprised of fluorescent fixtures that have reached the end of their useful life, are becoming costlier to maintain and operate and do not meet current energy code. Existing lighting does not meet the current energy code requirements.
- Update mechanical and lighting systems throughout to improve energy efficiency
- Intercom system has reached end of useful life.
- Door controls are not currently functional
- Data and telecommunications do not meet current DCYF Standards for cabling and equipment.
- Camera monitoring does not cover all areas allowing for areas of no observation.

### ENVELOPE

- Exterior walls are in good condition and provide good thermal insulation. Exterior doors and windows are operational and can remain.
- Roof and roof drainage is in good condition.

### INTERIORS

- Sleeping room interior furnishings do not serve the DCYF mission of providing normative environment and need refurbishing.
- Interior sleeping and group rooms are missing door and door hardware and need replacements.

### UTILITIES/SITE

- Existing utility connections are in good condition and are adequate to serve the building.
- The existing outdoor recreation area lacks a covered portion for visitors or all-weather activity.

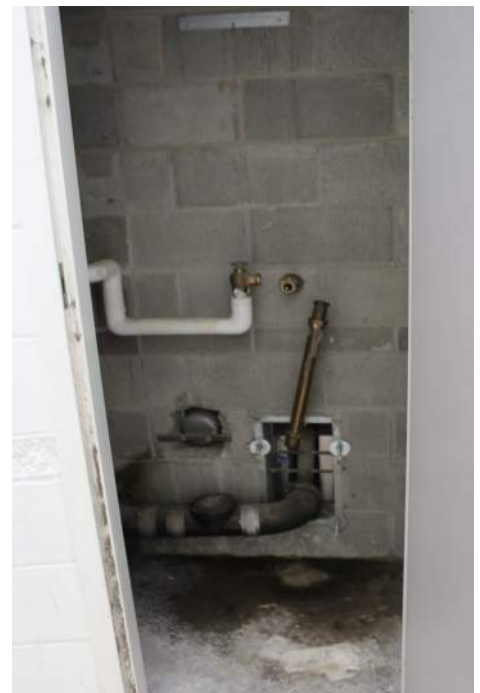
The Green Hill School is best suited to accommodate the oldest of youths being transitioned from the Department of Corrections to the Juvenile Rehabilitation system due to the campus availability of vocational education and training and the intrinsic higher durability of the housing cottages over others in the DCYF system. Unlike recently renovated Baker South, however, the facilities at Baker North are outdated and cannot support the School's programs and the specific programmatic needs of the older population. If the building is not upgraded, the School will not be able to provide the same valuable programming and training for all youths but will be forced to provide diminished opportunities for those assigned to Baker North. Fewer opportunities for self-affirming training and skills-building may result in slower rehabilitation and youth release may result in higher recidivism rates for Green Hill School alumni.



Baker Cottage North, sleeping room



Baker Cottage North, sleeping room



Baker Cottage North, plumbing chase

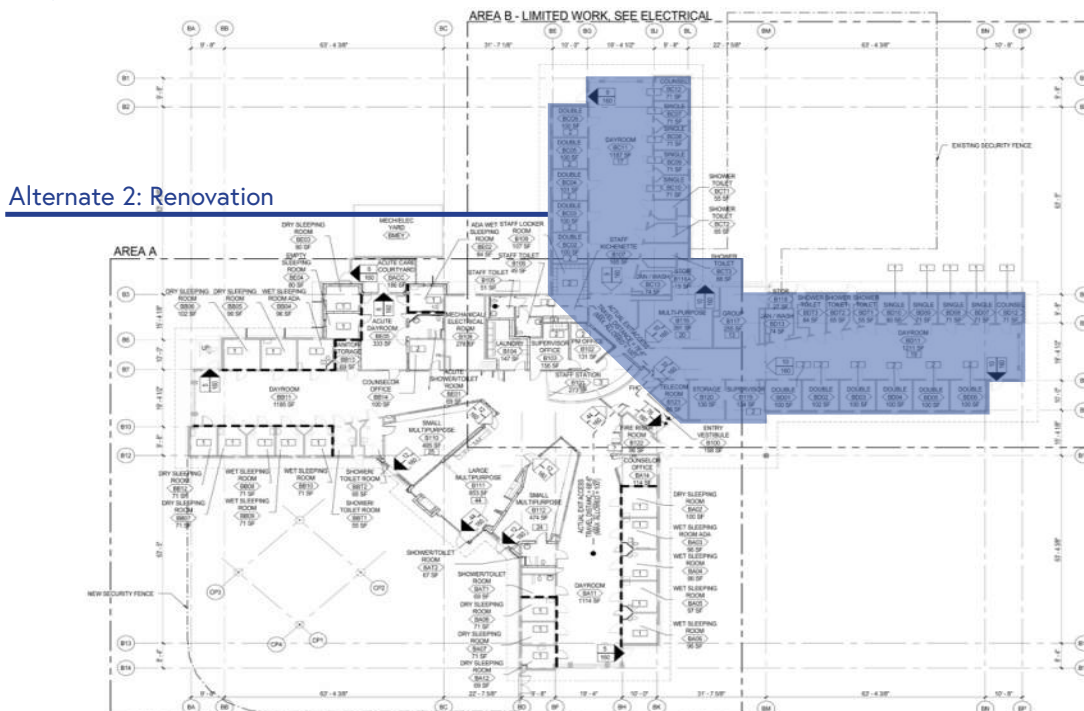
### 3.A.iii. Alternative 2 - Renovation of Baker Cottage North

The Washington State of Children, Youth, and Families vision is: "All Washington' children and youth grow up safe and healthy – thriving physically, emotionally, and academically, nurtured by family and community." By renovating Baker Cottage North we are striving to help DCYF achieve this vision. The renovation will provide a supportive environment for youth in transition and provide a place of treatment and life skills development. In addition, the systems will be brought up to current code and technology providing a safe, secure, and healthy environment for both youth and staff. This will be achieved in two ways. One approach is to improve the existing facility by creating habitable normalized spaces and expand the building footprint to accommodate the programmatic needs of this older and transitional population. The second approach is to upgrade existing mechanical, plumbing, electrical, and security systems to provide a fully operational living unit that improves air quality, reduces energy consumption, and provides operational safety and security infrastructure for daily operations. This approach promotes the DCYF values of inclusion, respect, integrity, compassion, and transparency.

The preferred renovation alternative includes a complete renovation of the existing 7,800 square foot of half of Baker cottage and a 500 square feet addition to accommodate the expanded program requirements befitting of the modern day juvenile rehabilitation system, aligning to the values of DCYF, and servicing this new older population needs of 21-25 year olds. Baker North will be sharing staff support spaces that were built out during the Baker South renovations and sized to accommodate staffing needs for the complete building, however it is the intention that Baker North and Baker South will be staffed and operated independently of one another and will not increase staffing burden on either half.

The renovation alternative is the response to the passing of the state legislation bills E2SHB 1646 and SB6160. This increases the juvenile population in the DCYF system requiring additional beds and living spaces to support juveniles up to 25, four years beyond the previous age range. The renovation of Baker North responds by taking a current state asset and renovating it to provide increased capacity on an existing campus. In this way, Green Hill School can accommodate more youth that are in the process of transitioning to a group home upon release. The renovation will provide the needed program space, structure, and flexibility for youth transitioning into community supervision and help them build a foundation of emotional, physical and academic life-skills to succeed once released. In order to meet the population projection, renovation should begin as soon as possible.

#### Baker Cottage Proposed area of renovation.



The direction of juvenile justice in Washington State focuses on rehabilitation. Green Hill School strives to accomplish this by providing a more normalized environment. Presently at Baker Cottage North, sleeping rooms have a more institutional finish and appearance. The renovation will provide a transitional environment and structure for youth preparing to transition out of the juvenile system and into a community group home environment. The program will provide structure for staff and residents but allows residents the responsibility to self-regulate their individual schedules and learn basic life skills and independent living proficiencies. Presently the existing attached recreation area does not meet the program described activities. The existing recreation area has a very institutionalized, cold feel to it. It is the intent of this program to introduce a more normalized flexible space that allows for multiple activities to occur within the area in both favorable and inclement weather.

### EXTERIOR BUILDING UPGRADES

The existing exterior walls are CMU fully grouted with 2" rigid insulation with either CMU veneer or wood siding. The walls are in good condition and do not appear to need repair. The new addition exterior walls will meet current energy code requirements. They will also use similar materials of wood siding and CMU wainscoting to match the existing building's architecture.

The existing exterior windows and doors are to remain. New window and doors in the addition will be commercial storefront and adhere to the Washington State Energy Code requirements.

The existing roof is a standing seam metal roof and is in good condition. The new addition roof will be a standing seam metal roof to match with the existing with rigid insulation over a metal deck with new gutters, metal flashing and downspouts. The existing roof components are in good condition and will not need to be replaced. Due to lessons learned during Baker South renovation, to maintain warranty of the new metal roof, replacement of portions of the existing roof at the addition will likely be required. At this time it is assumed that an area equal to approximately 1,000 sq ft of existing roof will be replaced with the new addition.

### SLEEPING ROOMS

The sleeping rooms will be renovated to increase normalcy by removing the institutionalized built-in furniture and replacing with detention grade but normalized furniture. The 16 sleeping rooms include twelve single and four double occupancy rooms. The existing doors are detention grade with a vision panel. Some of the sleeping room doors will need to be replaced due to condition and will be detention grade with tempered glass in the



*Baker Cottage North recreation area.*

vision pane. The residents will have a key card that allows them to regulate their own schedule with staff override for situations that require intervention. The system will be set up to disable the key cards to allow flexibility in the future to house a more secure population that is not befitting of this feature. The furniture will be more normalized and secured to the floor so staff can maintain safety and security. All sleeping rooms will have natural light with exterior windows. The sleeping rooms will have power in the room, an interior light switch, with staff override and a built-in programmable alarm clock. Sleeping rooms will receive a 2-3 part epoxy coating to increase durability of finish and reduce maintenance needs.

The program for this cottage encourages the residents to work independently and be held accountable for their schedules and choices. This helps foster a strong foundation for the youth to pursue the physical, emotional and academic independence needed to transition out of the juvenile system. Sleeping rooms are grouped into 2 wings in the building and are comprised of 8 sleeping rooms, 2 shower and toilet room, and storage for linens and supplies. Shower and toilet room renovations will include renovations for ADA compliance and anti-ligature fixtures that provide safety for the residents.

One of the sleeping rooms is a wet, accessible room with a toilet sink combination. The sleeping room elements are the same as described in the previous paragraph. There will be four double occupancy sleeping rooms, two per wings. The intent is to operate the north half of the facility as a 16 bed unit, but with the ability to provide a double bunk room should capacity increase and beds are required. Staffing counts would adjust as necessary for increase over the 16 beds. This allows flexibility for staff for future population growth or temporary surges. In the double rooms these are two floor mounted beds in a 100 sf room. This allows the residents the 35 sf of free unencumbered floor area per ACA standards.

## SLEEPING WINGS

The space between sleeping rooms in wings C and D provide quiet areas for academic study, private phone conversations, research for housing, and job searches online. Additional acoustical treatments to the walls and ceilings will help mitigate the sound and provide the quieter spaces in the wings. The residents will have limited access to the internet and provide the ability for them to thrive by providing training in self-directed activities upon release.

*Pictured top to bottom:*

1. Existing wet sleeping room at Baker Cottage North
2. Existing wet sleeping room at Baker Cottage North
3. Existing windows in sleeping rooms.
4. Existing boat bed furniture not providing normalized environment.



## STAFF STATION

The staff station is located in the center of Baker Cottage and will reconfigure a portion of the staff station that was renovated during the work at Baker South. The staff station was sized at that time to accommodate both halves of the building but will require adjustments to optimize lines of sight into C and D wings as well as the new proposed dayroom and multi-purpose room spaces. The Baker South program office will be reconfigured to allow for improved sight lines. The staff station consists of a high counter with storage with a built-in access door between North and South for quick access to either wing and the shared staff areas including staff restrooms, lockers, and break room that are directly adjacent. The staff station provides controls for doors, lighting, intercom, water shut off, and a camera viewing station. The staff of south and north are separate and autonomous and are distinguished as different programs. The renovation re-uses an underutilized space. The centralized location optimizes security for both the staff and residents and provides the youth structure and support as they continue the process of transition.

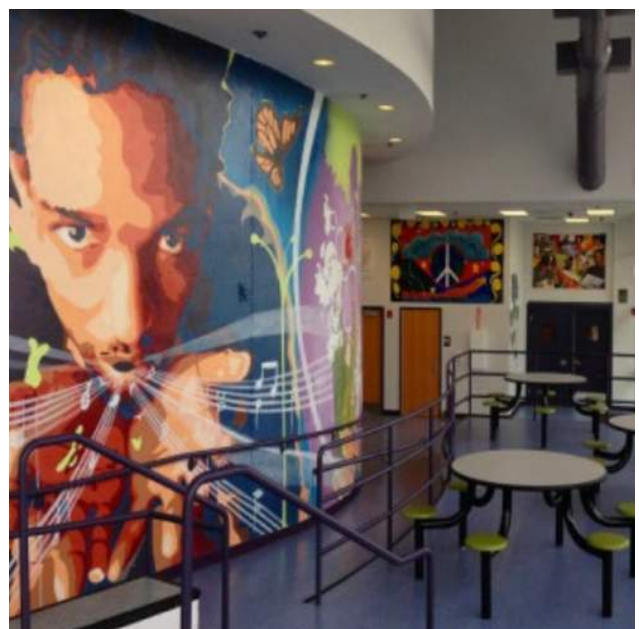
The program office is across the corridor from the group room and is located closer to the central staff station and dayroom and is located in D wing. It has interior windows that look into the group room and out into the D wing quiet area for additional supervision. The program manager office is intended for one workstation and provides room for up to two additional people to meet within the office. The program manager's office will have exterior windows to provide natural light.

## DAYROOM AND GROUP ROOM

The dayroom is located in the central knuckle of the cottage and has area for cooking, dining, and living space. It is an active, high energy space intended to provide flexible area for a large range of activities. The dayroom will be designed to provide a nurturing and normalized environment. This gives the residents the structure to thrive physically and emotionally and prepares them for a more successful life when they are released. The dayroom has direct access to the recreation area and will maximize the natural light from the 500 sf addition, in keeping with the precedents set at Baker South renovations. The dayroom is directly adjacent to the staff station and provides security by allowing direct sightlines into the common areas. The dayroom is proposed to be pulled back from the staff station to allow circulation space and avoid narrow passage that would increase the potential for conflict and reduce visibility to the wings.

*Pictured from top to bottom:*

1. Sleeping room, CLIP Building, KMB architects
2. Dayroom, Oregon Youth Authority MacLaren Youth Facility, DLR Group
3. Commons, Washington DC, New Beginnings Youth Center, Unknown artist

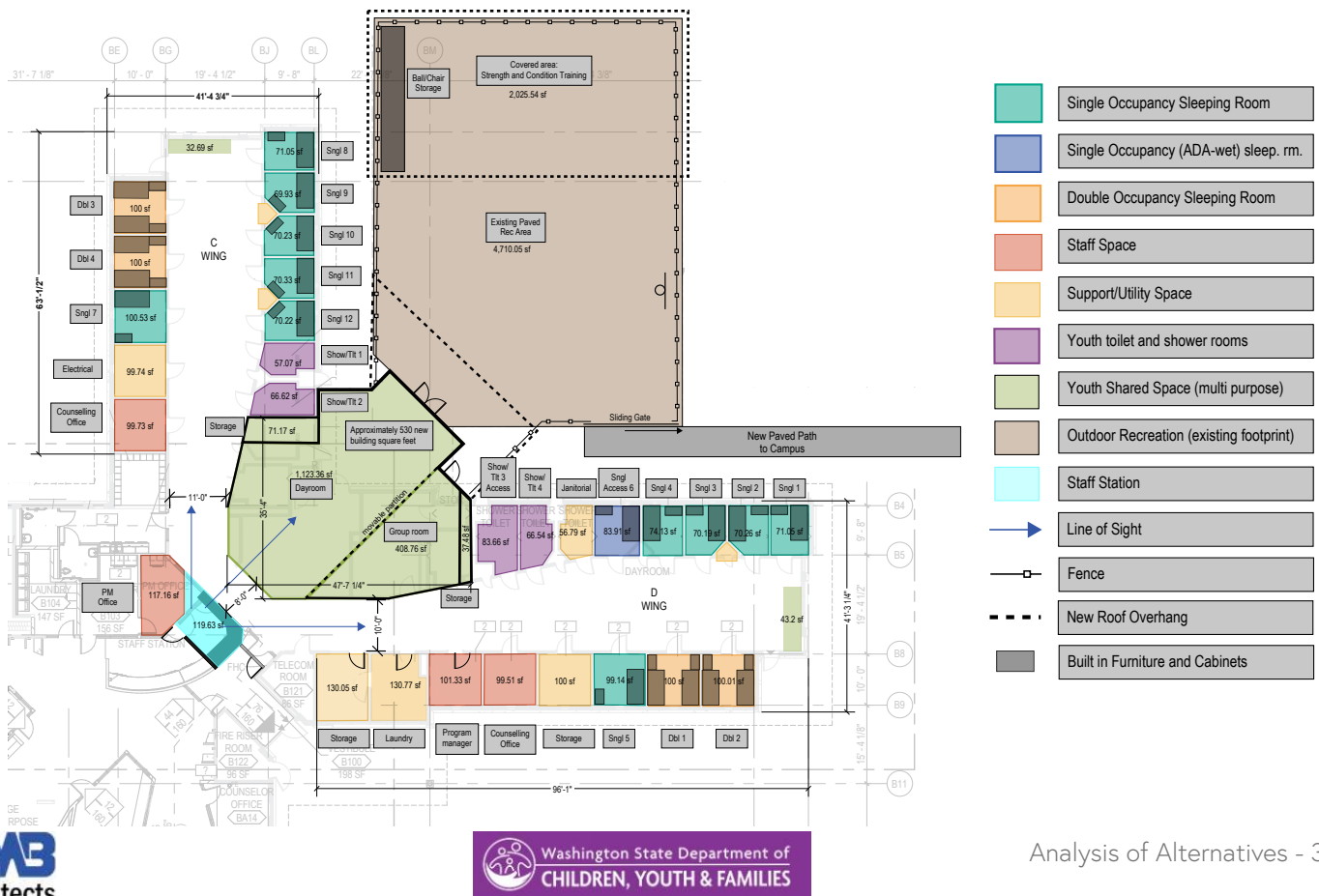


The dayroom is separated from the group room with an acoustical operable partition wall. This will allow the staff the flexibility of combining the two spaces for larger group activities without the need to add additional program square footage. The kitchen zone is larger than most cottages as residents will have the opportunity to make their meals on their own schedules due in large part to the individual development plans for the older youth to develop independent living skills. For this reason, the kitchen needs to provide plenty of built-in storage for the residents, food storage, cleaning and cooking supplies, and all other kitchen necessities. The kitchen will have sinks, a microwave, dishwasher, 2 refrigerators, and a stove/oven to support the youth. The dining zone will have detention grade seating for a range of activities which include eating, studying, and other informal small group activities that provide opportunities for developing social and relational skills as well as supporting educational needs. The living zone will also have soft niches similar to Baker South that provide the residents the ability to read and to provide a feeling of privacy while maintaining full sight lines by staff. Normalizing the space with updated finishes, natural light and flexible furniture helps prepare the youth for the eventual transition into a group home and gives them the skills to thrive once they transition. The dayroom storage is used to store furniture and other equipment to allow for greater flexibility in the dayroom by allowing the room

to support many activities with space to move equipment and supplies when not in use.

The group room is directly adjacent to the dayroom and proposed to be separated by an acoustically sound operable partition. This allows for multiple activities to be occurring in both spaces with ability to combine the space when the staff want to have the youth engage in larger movement activities indoors. The activities in this room range from group counseling, direct instruction, staff training or meetings, visitation, small group meetings, and indoor physical large movement.

When closed off from the dayroom, the small group room will comfortably fit up to 12 people and will allow multiple program sessions to occur within the cottage simultaneously. The small group room supports staff meetings and training for use by the entire cottage, including Baker South. For this reason, an addition of 500 sf was added to provide a more usable space. The addition will occur at the knuckle where the wings meet and will allow ample circulation around the common areas, between the wings, and facilitate sight lines throughout the north cottage. The group room will have audio-video capabilities, intercom, and a large flat screen television for watching tv, for presentations, and whiteboards for instruction. The furniture in the group



room is mobile and flexible to accommodate a variety of activities. Room finishes are durable while providing warmth to create a normative environment to provide structure and support for the residents without compromising maintenance issues or material damage.

Group room storage is directly adjacent to the group room and stores a range of equipment that allows for greater flexibility in use of the group room by allowing the room to be turned over for different activities.

## YOUTH SUPPORT SPACES

The counselor office allows for 1:1 professional visitation, and private counseling sessions. Windows will provide visibility for staff and PREA regulations while ensuring acoustic privacy. There are two counseling offices, one per wing. They are located closer to the common areas in the central hub and have exterior windows that provide natural light.

The laundry is centrally located next to the group room and adjacent to the program office and serves residents of both C and D wings. The residents are responsible for doing their own laundry as a way of preparing them with necessary life skills and the aptitude of self-reliance. This will help foster self-confidence that promotes a healthy life-style for when they fully transition. The laundry room is sized for 2 washers and dryers to support 16-20 youth.

The janitorial room will serve both wings and is located in the D wing. It is located in what was a toilet-shower room to minimize cutting of the existing slab for any new plumbing. Doing this reduces construction cost and disruption of the existing conduit and wiring that is located in the slab. The program intent is to re-use existing plumbing areas as much as possible to minimize disruption and cost to DCYF. The janitorial room is lockable and houses janitorial supplies and a mop sink. Residents can only access this with supervision of a staff member.

## BUILDING SUPPORT SPACE

There are two storage rooms that serve the needs of both Baker South and Baker North. These rooms are lockable and only accessed by the staff to ensure greater security. Additionally the existing plumbing chases in both C and D wings will no longer be required as these previously wet sleeping rooms will become dry allowing the chases to be re-used as small storage closets for the

*Pictured from top to bottom:*

1. Baker Cottage South, Group room
2. Baker Cottage South, A wing
3. Baker Cottage South Day room
4. Baker Cottage South, Day room





residents and will store linens and other items. These smaller closets are lockable and only accessible through the staff to minimize security and safety issues.

The new electrical room in C wing is to provide all telecom and electrical needs for Baker North. The existing electrical room does not have the capacity to carry the additional racks and infrastructure required to service the security electronic equipment of Baker North. It is only accessible from the outside and is lockable for maintenance and staff.

The existing entry sally port will serve both north and south. In its current configuration, it is secured with full height glass. The existing staff station will be separated into two and allow south and north staff to work independent of each other. By using the existing sally port for both and modifying the staff station this will reduce programming needs and cost. The central location for a secure vestibule will increase staff and resident security.

### INTERIOR RENOVATION

All new structure, and any disturbance of existing structure, will be equipped with fireproofing in accordance the building construction type (3 hour fire protection). It should be noted that there is an extensive amount of in-slab conduit. Due to lessons learned on Baker South renovations, care should be taken in design to minimize amount of slab cutting required in construction to reroute plumbing or any other design decisions. Some conduit it is assumed to still service active systems; disruption will require new pathways, wiring, and tracing of service.

The facility upgrade will provide a safe and healthy environment that will provide better acoustics and normalized finishes in the cottage that allow the youth to grow, thrive, and transition. The sleeping rooms will have privacy and provide a safe place to learn to self-regulate their own schedules and emotions and have control of their personal environment. The common spaces will be divided into quiet zones and more high energy zones that allow the residents to choose based on schedules and personal needs. The quiet zones in the wings will have less noise distraction with the use of acoustical treatments on the walls and ceilings to allow for different activities. The durable but warm interior finishes will foster a normalized environment to nurture the youth's physical, emotional, and educational growth.



*Pictured Left from top to bottom:*

1. Restroom, Storstrøm Prison, CF Møller
2. Echo Glen Children's Center, Cottage 5 shower room

## OUTDOOR RECREATION

Presently the existing Baker North has a secured recreation yard attached to it. The renovation will provide a reconfigured recreation area that is fully fenced with direct access from the cottage through the dayroom. Access to this space is in keeping with the DCYF missions to help youth to thrive physically. The existing accessible recreation area is 4,800 sf of an existing hardscape that will be broken into zones and activities. The low activity area is directly adjacent to the dayroom under the covered roof of the new addition. This provides an area for visitation or just conversation. The recreation area will be fully fenced with a sliding gate near a new accessible walk that goes down to the existing campus pathways. The low activity zone will have picnic tables benches and chairs that allow flexibility and privacy for the residents. The higher activity areas will include both a covered and uncovered area. The covered area will have a simple steel column and beam structure with a metal roof. Built in storage will be located on one side of the shelter and store chairs, sports equipment, barbeques, and other miscellaneous equipment that fosters community and respect through staff and resident sponsored activities. The covered shelter will house a range of activities such as strength and conditioning training. The equipment will be bolted down and permanent. The other, uncovered active zone, is between the low activity and the shelter and acts as a buffer to the higher intensity activities. In this area there is a basketball hoop and allows for basketball and other pick-up sports.

The existing mechanical, electrical and plumbing infrastructure of the cottage description of scope is provided below.

## MECHANICAL SCOPE

**Plumbing Fixtures:** Provide all new plumbing fixtures (many of the existing have had components used for the Baker South remodel). Shall be detention grade throughout, and anti-ligature. For the wet sleeping rooms, floor drains may be provided outside the room but not inside. Laundry and mud room shall have floor drains.

**Plumbing Piping:** Domestic hot water and cold water piping shall be replaced in its entirety. Piping shall be sweat copper (no FIT piping allowed), with PEX acceptable for runouts to fixtures. For waste and vent piping, the existing cast iron piping may be re-used. New waste and vent piping shall be cast iron (no plastic piping allowed). Ensure interior cleanouts are in accessible locations.

**Plumbing Valving:** For each pod, one keyed access door shall be provided with manual ball valves for both pod and individual fixture shut-off. In addition, a Master electric shut-off valve shall be provided, one for each of the two wings.

*Pictured left to right:*

1. Exterior plumbing chase
2. Interior plumbing chase.
3. Restroom.



**Domestic Hot Water Source:** Campus heating will remain the source. Provide a new hydronic heat exchanger for domestic hot water, connected to the campus central hot water system (provides 190°F water to the building). Provide a new recirculation pump for the domestic hot water system. Locate heat exchanger and pump in the Mechanical Electrical Room.

**Heating Equipment:** Campus heat will remain the source. The two existing air handling units in the mezzanine (one per wing), which are connected to the campus central hot water system, will be re-furbished including new motors and fans. Victaulic pipe fittings are acceptable for heating water piping system.

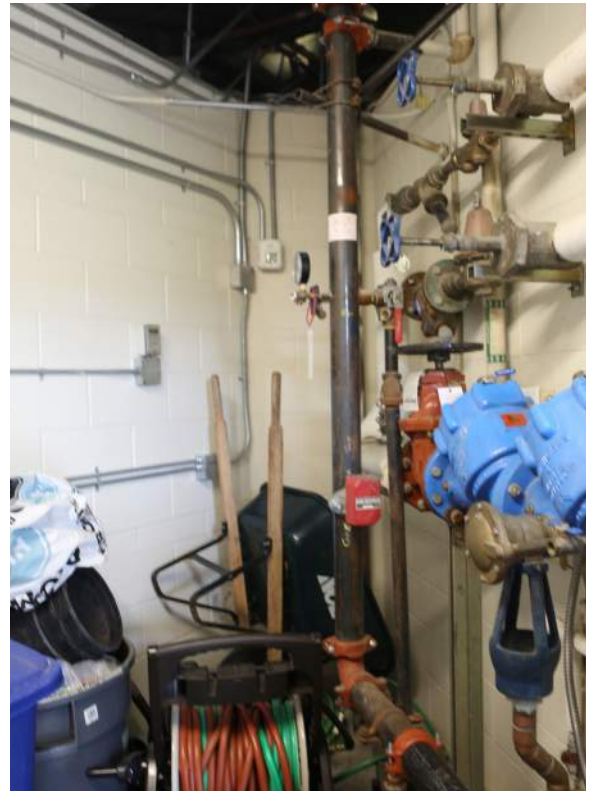
**Cooling Equipment:** Provide a new air cooled chiller for the building, since the previous remodel did not account fully for the north wings. Unit shall be configured for 42°F chilled water supply and 54°F return water temperature. Victaulic pipe fittings are acceptable for chilled water piping system. Chiller shall be located outside, on grade.

**Air Distribution:** To allow much better thermal zoning, the ductwork in the two wings shall to be converted to Variable Air Volume (VAV) to provide approximately 7 thermal zones per wing. Existing air handling units can be re-used, but will require new larger fan motors and VFDs. HVAC duct mains will need to be replaced to accommodate the VAV function. Grilles located in sleeping rooms shall be detention grade, anti-ligature, and located on the ceiling

**Exhaust:** Provide new exhaust fans, in line type preferred. Provide exhaust for showers, toilets, laundry and the janitorial room. Exhaust isolation room with 'hi-exhaust' mode function, initiated at the control desk.

**Mechanical Controls:** Connect building controls to existing campus control system, which is a Continuum direct digital control system. Provide one thermostat per HVAC zone. Thermostats at sleeping wing zones shall be in exhaust/return duct, not accessible from the room.

**Fire Sprinklers:** Fire Sprinklers shall be an extension of the existing fire sprinkler system. System is wet pipe type. Sprinkler heads in all areas, except attic areas, shall be institutional.



*Pictured top to bottom:*

1. Existing Fire Riser Room.
2. Baker Cottage Mechanical systems in attic.
3. Baker Cottage Mechanical systems in attic.



## ELECTRICAL SCOPE

**Fire Alarm System:** Replace existing detectors with new and add Carbon Monoxide protection in all sleeping rooms and immediate areas. Provide devices to cover new rooms.

**Power:** Modify existing electrical distribution panelboards as required to provide protection with the following additions;

- Provide ampacity and capacity to handle new building modifications and mechanical revisions
- Arc fault protection breakers for circuits supporting the bedrooms
- GFCI protection for all wet areas and at sinks.
- All new 15 and 20 ampere, 125 and 250 volt non locking type receptacles shall be tamper resistant.
- Charging stations for laptop computers for educational purposes.
- Receptacles with built-in USB ports for charging electronic equipment.

**Lighting:** Replace and provide new lighting consisting of efficient LED lighting fixtures and energy saving controls:

- Replace existing light fixtures with new LED retrofit where applicable.
- Provide new LED fixtures in new construction areas.
- Provide energy efficient lighting controls with dimming capabilities.
- Provide touch screen controller at staff station for operation of lighting, including sleeping rooms.
- Provide energy efficient lighting for the exterior of the building and adjacent outdoor locations.
- Provide UPS for Life Safety Backup and connect to existing generator system.
- New lighting control panels will be accommodated in new electrical and low voltage room in Baker North.

## Telecommunications:

- All data wiring shall be brought up to current DCYF standards.
- Telecom wiring shall be capable of providing future VOIP capabilities.
- New data racks and infrastructure will be installed to meet current DCFY standards.
- Power and Battery Backup (UPS) at data racks shall be per current DCYF standards.
- New panels will be accommodated in existing telecom room if feasible. If not feasible, they will be located in the new electrical and low voltage room in Baker North.

#### Door Controls:

- Provide new access door controls to support new and existing rooms and door locations.
- Provide access door control using key fob locally and touch screen controller at staff station.
- New panels will be accommodated in new electrical and low voltage room in Baker North.

#### Intercom:

- Intercom will be replaced to provide communications between sleeping rooms and staff station. Intercom shall also act as PA with talkback for communications in all other areas.
- Intercom shall allow for music to be played selectively through system.
- New panels will be accommodated in new electrical and low voltage room in Baker North

#### Technology: Additional technology items to be included are:

- WIFI for administrative use and WIFI for youth.
- Add data connection to TV's for internal programming.
- Phone locations shall be controlled from staff station.
- Provide built in programmable alarm clocks in sleeping rooms
- Separate intercom, access control, lighting control and CCTV from Baker South and integrate into a single touch screen system located in the new staff station for Baker North. Both Baker North and Baker South controls shall have ability to control access at the primary building entry sally port.

#### CCTV: Provide new camera system in building with monitoring at Staff Station:

- Add cameras and controls to monitor all areas (except sleeping and toilet rooms).
- Add cameras to monitor recreation area.
- New panels will be accommodated in new electrical and low voltage room in Baker North.

### 3.B Cost Estimates of Alternatives

Provide enough information so decision makers have a general understanding of the costs and Complete OFM's Life Cycle Cost Model (RCW 39.35B.050).

#### i. COST ESTIMATE

A complete cost estimate is provided for the renovation alternative. The escalated construction cost, without design contingency, is \$4,383,150 per C-100. The total project costs are estimated to be \$6,750,000. Construction costs include all costs for deferred maintenance, building repair, and equipment replacement required to provide a functional building fit for occupancy. For the complete construction cost estimate, see Section 5.A. For the complete C-100 Forms, please see Reference 6.0 section D.

#### ii. LIFE CYCLE COST MODELING

Per the LCCM workbook instructions, an LCCM is required as follows: "all proposed property acquisition projects, including leased and owned, greater than 20,000 square feet to have an LCCA performed unless the expected occupancy is less than 5 years."

In addition, Substitute House Bill 1102 Chapter 413 effective May 21, 2019 added new Section 7004 requiring a life-cycle cost analysis for any construction project over \$10,000,000.

The purpose of an LCCM is to compare the financial merits of leasing or purchasing new property to fulfill program needs. Baker North at Green Hill School is under 20,000 square feet, with an estimated construction cost of \$4,383,150 and estimated total project cost of \$6,468,000. In addition, the property is owned outright by the Agency and therefore is not a proposed property acquisition. Due to the fact that only two alternatives (No action and Renovation) were part of the scope per OFM approval, as well as the fact that Baker North is an existing building on property already owned, and that the building is under the square footage and construction cost requiring this cost analysis, an LCCM was deemed unnecessary and approved as such per conversations with the Office of Financial Management. This renovation alternative proposes using existing non-utilized space under long term lease thereby preserving a state agency asset.

### 3.C Schedule Estimates of Alternatives

Schedule estimates for each alternative. Estimate the start, midpoint and completion dates.

#### Proposed Schedule for Renovation Alternative

Design to begin Fall 2021

Construction to begin Fall 2022

Occupancy scheduled for Summer 2023

Please see section 4.K for full proposed project schedule of preferred alternative.

Please see section 5.A for cost estimate of preferred alternative.



## **4.0 Detailed Analysis of Preferred Alternative**



## 4.0 Detailed Analysis of Preferred Alternative

### 4.A Program

#### i. NATURE OF SPACE

How much of the proposed space will be used for what purpose.

The renovation supports the facility mission through an emphasis on safe, durable, and normative environments with means to provide life-skills transitional training. To support the youth's needs for a positive environment, the building provides a variety of spaces for activities from 1:1 consultations to large group meetings. Group and common spaces have visible lines of sight for secure staff monitoring. Staff spaces are strategically placed so the entire facility can be easily observed and monitored.

**Sleeping Rooms (16 total rooms with 20 total beds):** Each wing of Baker North contains 8 sleeping rooms each. The sleeping rooms are intended to be normative environments; a calm space where youths will be housed during nights. To encourage a sense of ownership and normalcy, detention grade furniture beds (no boat beds) will be provided along with detention grade shelving furniture to provide a secure location for youths to store belongings. All sleeping rooms are located on the exterior and have access to natural light that aids healthy circadian rhythms. Warm and inviting interior finishes add to the sense of belonging and encourage a calm environment. One room will have detention-grade, anti-ligature sink and toilet fixture reserved for violent youth who are de-regulating or have special needs. Rooms will be outfitted with electrical outlets, intercoms, and programmable alarm clocks to train youths to abide by a regular, healthy schedule that they can independently manage in preparation for life outside of Green Hill. Two single occupancy toilet and shower rooms will be located at each wing. All toilet and shower rooms will be well-lit with warm toned finishes. Plumbing fixtures to be detention-grade and anti-ligature.

**Wings:** Each wing provides day and evening quiet areas where youth have access to quiet spaces such as study carrels with computer access and acoustically private phone areas. These wings provide space for independent activities including school work, visitation, and reading. Study cubbies and acoustically separated phone areas are desired in the wings to provide areas for independent concentrated work while maintaining full sight lines in accordance with PREA standards. These areas are completely visible and unobstructed from the staff station.



*Pictured from top to bottom:*

1. Holmsheidi Prison bed, Hreinn Magnusson
2. New Beginnings Youth Center, Sleeping Room, Source: Unknown.
3. HLM Architects, Halden Prison, Sleeping room

**Multipurpose areas:** At the intersection of the two wings, the large multipurpose space is divided into the Dayroom and the Group Room. The Dayroom is the largest group space and can accommodate all 20 youth and 2-4 staff for unstructured activities such as dining, reading, laptop work, and video games. With large windows, the room has natural daylight with warm and inviting finishes. To support dining activities, fixed seating and detention grade dining furniture such as booths or tables is recommended. Soft-textured nooks will provide acoustic separation and a feeling of privacy for reflective activity or phone use while being visually open with unobstructed sightlines. Moveable furniture can support a range of other informal, interactive activities. Separated from the Dayroom by an acoustically sound operable wall, the Group Room will support structured, educational instruction, such as group counseling, visitation, staff training and small group meetings. With room for 8 youth and 2 adults, the lockable Group Room will have A/V capabilities such as a projector, TV, and whiteboards. Both the Dayroom and Group room will have adjacent storage spaces to allow for more flexibility in room use by storing materials and furniture to allow the room to be converted for different activities. Within the Dayroom, the large kitchen will be acoustically separate as youths may prepare meals on their own schedule, without interrupting other concurrent activities. Youths will store and prepare their own food as part of transitional training to build essential life skills. Appliances to include two refrigerators, stovetop, oven, dishwasher, microwave, upper/lower cabinetry. Warm and inviting finishes create a normative environment.

**Staff Areas:** Staff areas are strategically located around the Dayroom for maximum visibility into shared group spaces. The Baker North staff station will operate independently from the Baker South staff station and will have unobstructed sightlines into both the Dayroom and Group Room and the sleeping room wings C and D. The staff station serving Baker North can accommodate 1-2 staff with computer controls for door locking, intercoms, lighting, video and water shutoff functions. A half height wall with full height glass separates the staff station from the entry vestibule sally port but will be open to the corridor and youth space once within the Dayroom. The staff station and entry vestibule serve to restrict free movement of the youth between the North and South half of the cottage. Staff will be able to easily move between the two sides. Baker north staff will have access to the shared Baker South break room, locker room, and restroom; these facilities were sized during the Baker South



*Pictured from top to bottom:*

1. Naselle Youth Camp, Cougar Lodge, dayroom
2. Naselle Youth Camp, Cougar Lodge, Duty Station
3. Echo Glen Cottage 5, Duty Station



renovation to accommodate staff for the entire building. The program manager office will be a lockable room with a workstation. One-on-one consultations and meetings between staff and youth can occur in a separate counseling office, with one counseling office per sleeping wing. These offices will have exterior windows for natural light as well as glazed walls to allow for maximum visibility.

**Support Spaces:** Baker North's sally port entry point is shared with Baker South. Baker North's two wings will have access to one laundry room, where youths will do their own laundry as part of transitional life-skills training. One janitor room will service both wings. Existing mechanical, fire riser and IDF/telecom rooms in Baker South will also service Baker North. The renovation will provide a new dedicated electrical and low voltage room for Baker North due to the existing electrical/data room being at maximum capacity. Baker North storage serves both Baker South and North and will therefore be maintained and expanded to serve the fully occupied space.



**Outdoor Space:** This required outdoor space will support interactive activity and sports, encouraging a sense of community for both staff and youths. The area is to be completely fenced with a hardscape surface. A covered area by the entry will have seating to support family visitation. The far end of the outdoor area will also be covered and will have permanent, bolted-down strength and condition training equipment. The uncovered portion can support basketball and pick up sports. The fenced area will also have watertight storage for sports equipment.



*Pictured from top to bottom:*

1. Green Hill School, Breakroom
2. Echo Glen Cottage 12, Recreation Yard
3. Naselle Youth Camp, outdoor recreation area

## ii. OCCUPANCY

**Building Code:** Baker North renovations will be under the 2018 Washington State Building Code (WSBC) including adoption of and amendments to the 2018 International Building Code (IBC) and 2018 International Existing Building Code (IEBC). A complete list of applicable codes shall be provided during construction documentation.

**Construction Type:** Baker North is currently Type IA construction with NFPA 13 automatic sprinklers. Renovation work is not expected to change construction type.

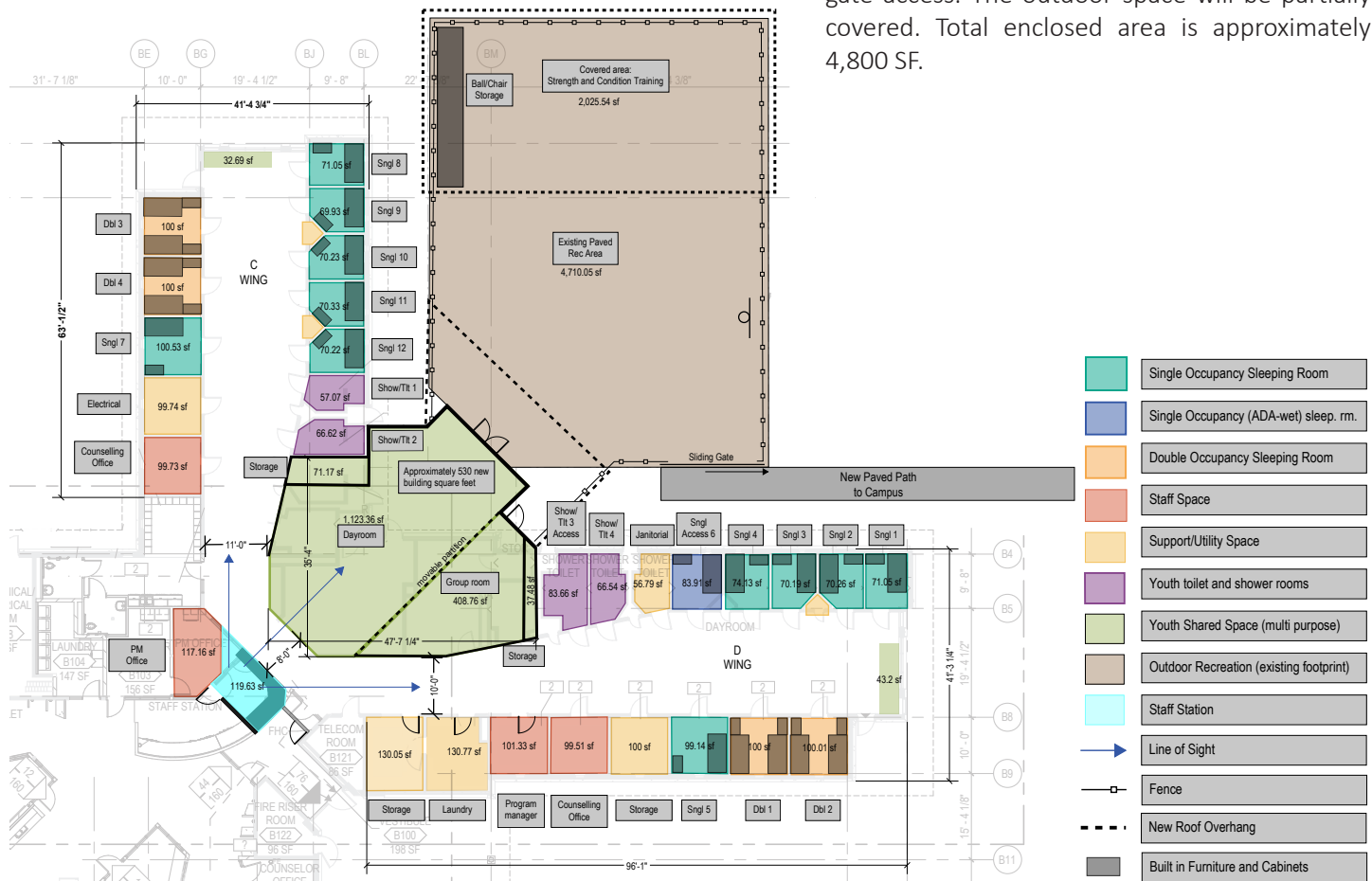
**Occupancy:** Baker North building occupancy is I-3, Condition 4. This half of the building will house a maximum of 20 residents and 4 staff.

## iii. BUILDING CONFIGURATION

Basic configuration of the building, including square footage and the number of floors.

Baker is a single-story building, divided into North and South sections. Baker South houses mental health and acute mental health male youth; renovation recently occurred and is not planned to be changed or disturbed by the Baker North renovations. Baker North is divided into two wings, C and D wings. Baker Cottage is approximately 18,200 square feet currently. Proposed renovations will affect approximately 7,800 square feet and include an addition of approximately 500 square feet.

- The Dayroom and Group Room are at the intersection of the wings and form the largest, central space of the building. Staff spaces are located around the Dayroom and have visibility to sleeping room wings.
- Sleeping rooms are double loaded along the wings. Two single occupancy toilet/shower rooms service each wing.
- The outdoor recreation space is accessible from the Dayroom and is enclosed by fence with gate access. The outdoor space will be partially covered. Total enclosed area is approximately 4,800 SF.



Department of Children, Youth, and Families  
Green Hill School - Baker North Cottage Predesign

Green Hill School - Baker Cottage North Predesign Renovation - Proposed Program				
Space Name	Quantity	Program NSF	Actual NSF	Commentary
<b>Sleeping Rooms</b>				
Single Occupancy Dry	11	71	71	All rooms to be dry. Provide detention grade furniture for bed and shelving storage. Include electricity in all rooms and built-in programmable alarm clocks. Key card access with ability to override. No cuff ports. Maintain 35 sq. ft unencumbered space per ADA, min 7' in one direction. Sleeping rooms to be grouped into 4 room zones.
Single Occupancy Wet, Accessible	1	100	84	Provide detention grade anti-ligature combination toilet and sink fixture. See above for additional notes.
Double Occupancy	4	100	100	Plan for floor mounted beds (no bunks) and avoid boat beds. See single occupancy rooms for additional notes.
<b>Shower/ and Toilet Room</b>				
Shower/Toilet Room	3	60	60	Single occupancy. Detention grade, anti-ligature plumbing fixtures. More discussion to occur on windows. Provide ability to adjust temperature. 2 shower and toilet rooms to be provided in each wing.
Shower Toilet Room ADA	1	80	85	Single occupancy. Detention grade, anti-ligature plumbing fixtures. More discussion to occur on windows. Provide ability to adjust temperature
<b>Day Use Area</b>				
Wings	2	1200	1200	Quiet spaces in between sleeping rooms. Provide study carrels, acoustically separated phone area, and ability for computer access.
Group room	1	500	400	Accommodate up to 12 people. Used as educational instructional space, group counseling, visitation, staff meeting room, staff training, and small group/private meeting space. Provide acoustic separation from remainder of space. Provide access to IT and A/V, whiteboards, etc. Consider acoustically sound operable wall between dayroom and group room. Room to be enclosed and lockable.
Group room storage	1	50	40	Accommodate storage to maximize room use and flexibility for multiple purposes.
Dayroom	1	1200	1125	Active and loud area. Provide large residential kitchen; youth may make their own meals - provide enough refrigeration space for all (consider two refrigerators). Provide direct access to outdoor area. Provide acoustic separation from remainder of space. Room to be open similar to dayroom at south half of Baker. Provide direct line of sight from staff station.
Dayroom storage	1	50	70	Accommodate storage to maximize room use and flexibility for multiple purposes.
<b>Staff Areas</b>				
Program manager office	1	120	101	
Staff Office/Counseling office	2	100	100	
Breakroom	Exist.	0	0	Shared space with Baker south
Lockers	Exist.	0	0	Shared space with Baker south
Staff station	1	150	120	Will utilize some space from existing staff station. Provide direct lines of sight to both wings and dayroom space. Ensure staff can pass through this area from Baker South to access the shared staff spaces on Baker North without having to pass through the entry vestibule. Ensure Baker North and South staff stations have separation with door access between and are able to operate independently. Existing program manager office can be reconfigured and reduced in size to accommodate.
Staff toilet room	Exist.	0	0	Shared space with Baker south
<b>Support Spaces</b>				
Laundry	1	140	131	
Janitorial	1	80	57	
Storage	2	100	120	
Electrical	1	80	100	
Mechanical	Exist.	0	0	Existing space, shared with Baker South
Fire riser	Exist.	0	0	Existing space, shared with Baker South
IDF/Telecom	Exist.	0	0	Existing space, shared with Baker South
Entry Vestibule	Exist.	0	0	Existing space, shared with Baker South
<b>Subtotal Programmed space Net Square Feet</b>	<b>6561</b>			
Grossing factor	25%			
(wall thickness, circulation, chases)	1639			
<b>Total Building Area Gross Square Feet</b>	<b>8200</b>			Approximately 600 additional square feet
<b>Existing to be renovated</b>	<b>7600</b>			
<b>Additional square footage</b>	<b>600</b>			
<b>Total Building Area Gross Square Feet</b>	<b>8200</b>			
<b>Outdoor Recreation</b>				
Outdoor Recreation	1	4500		Provide direct access from interior, does not require fencing all around, provide area for picnic table, sitting with storage for table, provide basketball hoop, provide weight training/strength training equipment, provide covering for use in bad weather
Access to Campus	1	1000		Provide additional paved path from new sliding gate at rec yard to connect directly to campus pathways.
Outdoor storage				Provide furniture solutions for outdoor storage of BBQ, stackable chairs, and balls.

**Summary of Bill SB6160**

Removes certain crimes from those which are automatically declined to adult court when committed by a juvenile.

**Table 3-2**

**Average Monthly Population Bed Impacts - Juvenile Rehabilitation  
E2SSB 6160.PL - Exclusive Adult Jurisdiction  
Caseload Forecast Council (March 8, 2018)**

	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
JR AMP	0	0	1	8	22	32	38	44	47	48

Source: Caseload Forecast Council.

**Summary of Bill HB2907**

Extends Juvenile Rehabilitation jurisdiction for youth convicted in adult court and adjudicated in juvenile court for serious violent offenses from age 21 to age 25.5.

**Table 3-3**

**Average Monthly Population Bed Impacts - Juvenile Rehabilitation  
HB2907 (Revised) - Confinement in Juvenile Rehabilitation Facilities  
Caseload Forecast Council (February 22, 2018)**

	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
JR AMP	0	0	1	4	13	30	46	61	72	75

Source: Caseload Forecast Council.

#### iv. SPACE NEEDS ASSESSMENT

Identify the guidelines used.

- There are no state-sanctioned space guidelines for this building type. The proposed program and building layout in this predesign report follows American Correctional Association (ACA) Standards for space and program requirements as well as the Prison Rape Elimination Act (PREA) for lines of sight and visibility requirements as well as staffing guidelines.
- With the passage SB 6160 and HB1661 there is projected population growth in the juvenile justice system per tables 3-2 and 3-3. (Tables available off WA JR Capacity Study pp 53- page name 3-3) The current facilities are not well-equipped to house the older youth and best support their needs. Refer to 2019 JR study for earlier recommendations. The proposed alternative renovation of Baker North addresses this.

*Pictured Left:*

*Washington Juvenile Rehabilitation Capacity Study, Table 3-2 and 3-3 by KMD Architects and Chinn Planning, Inc.*

### National "Best Practice" - Operation and Design for Juvenile Residential Facilities

*Based on Washington Juvenile Rehabilitation Capacity Study Figure 4-3*

- Small Housing Units (8-16 youth) Results in Improved Classification, Safety, and Management.
- Single Occupancy Sleeping Rooms
- Access to Abundant Natural Light.
- Open Dayroom with Contiguous Sleeping Rooms. (Improved Supervision)
- Single User Showers/Toilet Rooms. (1 per 4 to 8 Residents)
- On-Unit Housing Activities. (Counseling, Homework, Passive Recreation for Program Flexibility)
- Access to Outdoor Space.
- Central Dining.
- Very limited and Monitored Use of any form of Isolation.
- Minimum Direct Supervision Staffing Ratio of 1:8 (day) and 1:16 (night) to comply with PREA Standards.
- Incorporate ACA Standards and Other Youth Residential Facility Standards.

## 4.B Site Analysis

Due to the impact of the COVID-19 virus and the closure of local offices, information available to the pre-design team includes that available from record drawings, interviews with facility maintenance staff, publicly available online information, and limited discussions with City of Chehalis staff. A pre-application meeting is strongly suggested to formalize a complete list of development requirements.

### i. EXISTING STUDIES

Identify site studies that are completed or under way.

Further site investigation should include a site survey with utility locates and a geotechnical report

### ii. ADDITIONAL INFORMATION

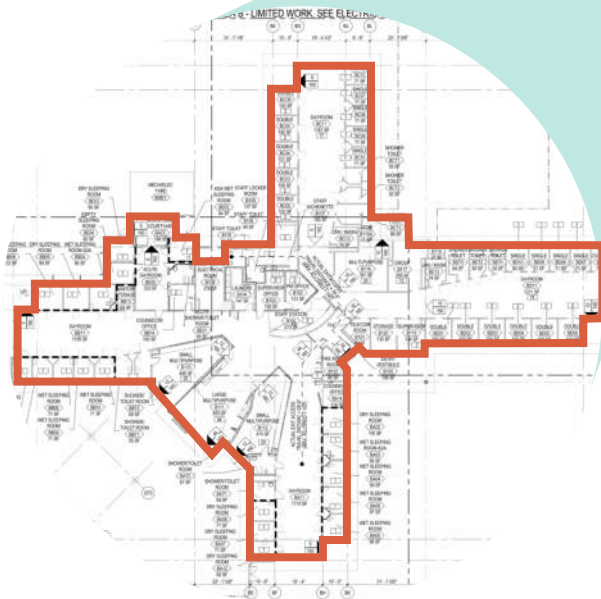
#### Location

Green Hill School site is located in Chehalis, Washington just northwest of the intersection of Interstate 5 and Parkland Drive.

Parcel Number: 005871071121  
Address: 375 Southwest 11th Street  
Chehalis, Washington 98532  
Zoning Designation City  
Land use Public/ quasi-public  
Use Code 68 Service- Education

#### Ownership of the site and any acquisition issues.

No issues. Agency owns the land and property outright.



Building footprint and its relationship to adjacent facilities and site features. Provide aerial view, sketches of the building site and basic floor plan. Baker Cottage is located on the southwest edge of the Green Hill School Campus. The building has a "X" footprint with four distinct wings.

*Pictured: Locations of existing Juvenile Facilities with location of Green Hill School location identified and Baker Cottage highlighted*

### Stormwater Requirements

Stormwater requirements are triggered on redevelopment projects when the area of impervious surfaces added or replaced exceeds specific thresholds. Rooftop runoff and runoff from impervious areas such as paved courtyards and walkways are considered non-pollution generating impervious surfaces. The proposed improvements include adding covered outdoor areas over existing paved surfaces. The paved areas are to remain and this activity will not increase the amount of runoff from the site so it is assumed these improvements will not be considered new or replaced hard surfaces. Other improvements that will count toward the threshold include a 500 square foot expansion of the existing building and a paved pathway of approximately 1,000 square feet. The building expansion and proposed pathway will result in approximately 1,500 square feet of new impervious surface. As presented, these site improvements are below the thresholds requiring stormwater improvements.

The 2019 Department of Ecology Stormwater Management Manual will govern improvements at the site. All redevelopment projects are required to comply with Minimum Requirement #2: Construction Stormwater Pollution Prevention Plan (SWPPP). Stormwater requirements for handling stormwater on-site. Stormwater will have to be completed if the proposed improvements exceed the thresholds presented in the table below.

### Easements and Setback Requirements

No issues; there are no known easements or setbacks in this area.

### Potential Issues with Surrounding Neighborhood During construction and ongoing

There are no anticipated neighborhood concerns or issues. Proposed renovation is within an existing building on an existing campus. There are no known issues with neighbors during operation or previous construction on campus.

### Utility Extension or Relocation Issues

There are currently no known utility issues and no planned improvements to existing utilities.



*Pictured above: View from Baker Cottage entrance.*

2019 DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL		
Requirement	Description	Threshold
CR #1	Preparation of Stormwater Site Plans	2,000 SF or more of new plus replaced hard surface area or land disturbing activity total 7,000 SF or greater
CR #2	Preparation of Stormwater Pollution Prevention Plan (SWPPP) (applies to all projects)	
CR #3	Source Control of Pollution	
CR #4	Preservation of Natural Drainage Systems and Outfalls	
CR #5	On-Site Stormwater Management (LID Performance Standard)	
CR #6	Runoff Treatment	5,000 SF or more of new hard surface
CR #7	Flow Control	
CR #8	Wetlands Protection	
CR #9	Operation & Maintenance	

**Water:** Water is supplied to the campus by the City of Chehalis. Record drawings from the renovation and expansion of Green Hill School from 1997 indicate an 8-inch water meter on the southwest side of campus adjacent to SW Pacific Avenue. A 6-inch domestic water main is located northeast to Baker Cottage. These plans also show a fire main coming from the southeast side of the building. The existing plans do not indicate a water meter to the building.

The building currently has fire sprinklers. It is assumed that a fire department connection (FDC) to the building and post indicator valve (PIV) are also present. Fire hydrants are located throughout the campus. The nearest fire hydrant, as indicated by as-built plans, is located approximately 166 feet southwest of the building. Fire departments typically require a hydrant within 50 feet of the FDC. If a FDC, PIV, or hydrant within 50 feet does not exist, they will likely be required.

There is currently no existing irrigation system on campus and no plans to add one.

The existing backflow preventer to Baker Cottage was recently replaced in early 2020. There are no known issues with the domestic water service to the building and no planned improvements are proposed.

**Sewer:** According to as-built documents, an 8-inch sewer service line connects to the corner of the northwest and southwest wing of the building. An additional 6-inch sewer service line was added in the 2016 renovation of the building. This line is connected to the southeast wing near the courtyard. The sanitary sewerage is conveyed through a 12-inch sewer main and connected to the city sewer. The nearest manhole is located west of the building, approximately 20 feet away.

There are no known issues or planned improvements to the sanitary sewer system at this time.

**Stormwater:** The 2016 Baker South renovation plans indicate a 5x16-foot quarry spall pad and a 50-foot long flow dispersal trench south of the building. According to the plans, this facility disperses runoff from the courtyard adjacent to the south side of the building. Rooftop runoff from the building is conveyed through 6-inch PVC tightline downspout collector to the storm drain system. Stormwater is conveyed to the hillside below and into a swamp.

## Potential Environmental Impacts

This site currently has no issues with flooding. There are no known protected species, wetlands, or historic classification, and no known issues with soils. It is anticipated this project will need to complete a SEPA checklist as part of the permitting process. However, no further process such as mitigation or an environmental impact statements are anticipated.

## Parking and Access issues, including improvements required by local ordinances, local road impacts, and parking demand

Minimal impact. Existing parking capacity meets proposed renovation's added staff needs.

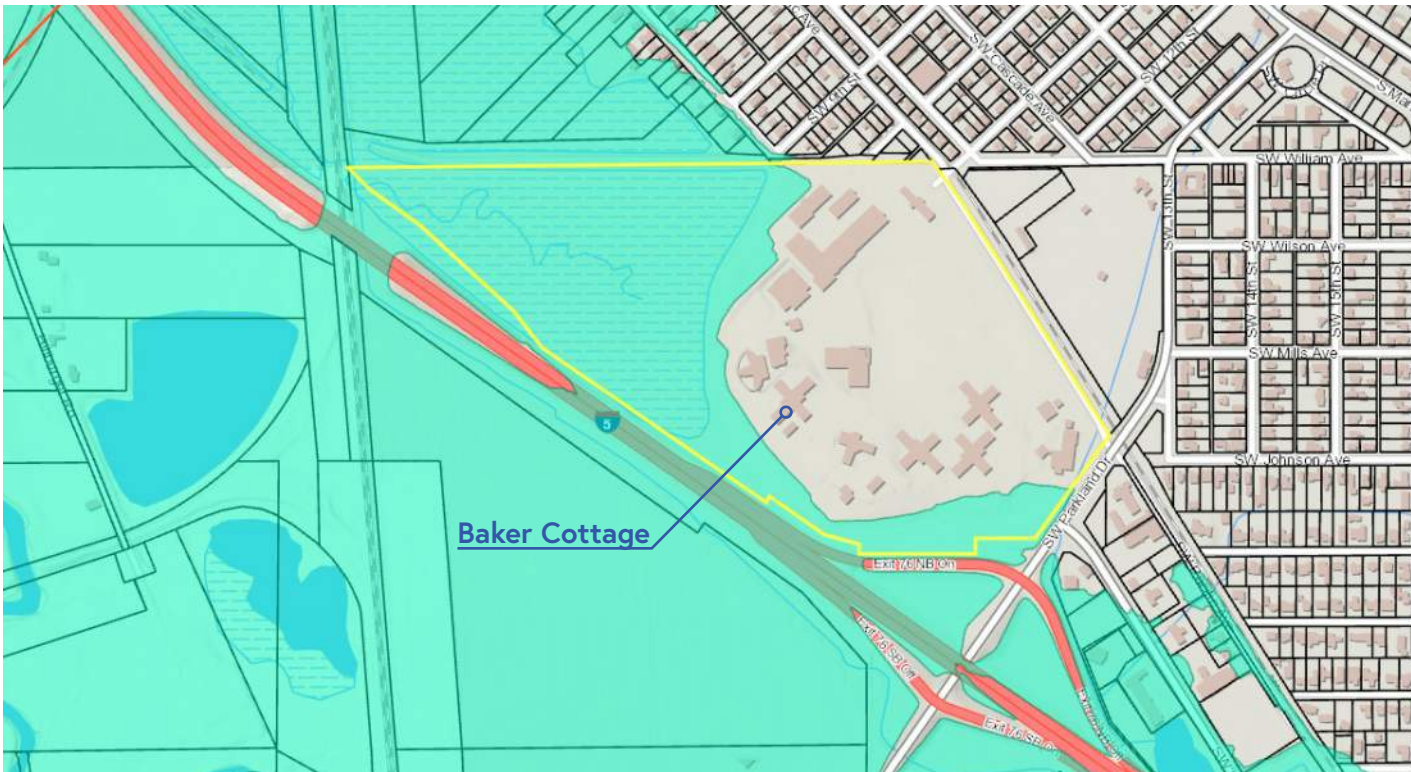
## Impact on surroundings and existing development with construction lay down areas and construction phasing

The vast majority of the renovation work for Baker North will be interior work and should have limited impact on surroundings. Exterior work includes altering the exterior envelope for a small building addition at the recreation area entry, and re-fencing and adding a covered area to the existing recreation yard. Exterior building and site construction will abide by all environmental restrictions. Construction work for this project will abide by Best Practice Management, with a TESC plan to address the paving of the new recreation area.

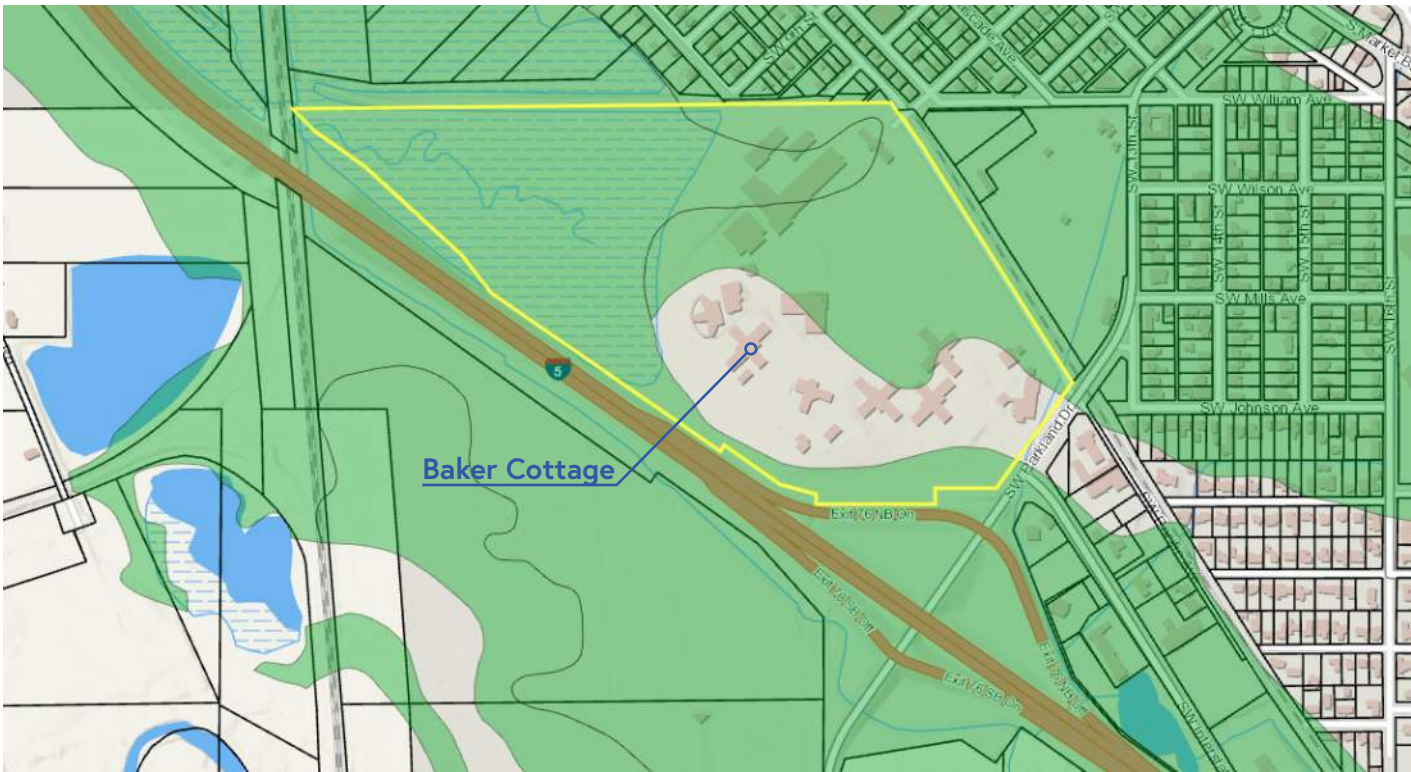
**Construction Laydown:** The team identified three areas near the building as most suitable for a construction lay-down area. No trees are expected to be removed for the lay-down area. The proposed lay-down area will be fully fenced and locked at all times. The contractor will ensure that all workers will check-in/out with proper ID and badging and ensure all tools/equipment will remain secured at all times when stored and in-use on campus. All safety and security protocols will be coordinated between the facility staff, contractor, and subcontractors.

**ADA:** There are no apparent ADA compliance issues. The building entry appears to meet ADA requirements; however, a full ADA assessment was not performed at the site. There is one exit that uses three steps where a ramp may be needed if the exit is required to be ADA accessible.

From Lewis County GIS Date Map:



2007 Flood Map



Hydrologic Soils  
Reported

## 4.C Consistency with Applicable Long-Term Plans

Consistency with applicable long term plans as required by RCW 43.88.110.

DCYF completed the last master plan for this area in 2004. However, it is considered outdated and was not consulted for this project. DCYF intends to begin development of a master plan this year and design of this project, once funded, will be coordinated with the completed document.

## 4.D Consistency with Laws and Regulations

At the time of construction the state will have adopted the 2018 IBC and the 2018 Washington State Energy Code

### Authority Having Jurisdiction:

City of Chehalis Building and Planning Department  
1321 S Market Blvd  
Chehalis, WA 98532  
Fire District: Chehalis Fire Department

### Applicable Codes and Standards:

International and National Codes  
2018 International Building Code  
2018 International Existing Building Code  
2009 ICC / ANSI A117.1  
2018 International Mechanical Code  
2018 International Fire Code  
2018 Uniform Plumbing Code  
2017 National Electrical Code  
2017 Liquefied Petroleum Gas Code  
NFPA 13 (National Fire Protection Association)

### Washington State and Local Codes:

2018 Washington State Energy Code – Chapters 51-11 WAC  
Washington Administrative Code

### Washington State Codes Amendments:

WA State Amendments to the 2018 IBC Chapter 51-50 WAC  
WA State Amendments to the 2015 IMC Chapter 51-52 WAC  
WA State Amendments to the 2015 IFC Chapter 51-54 WAC  
WA State Amendments to the 2015 UPC Chapter 51-56 And 51-57 WAC

Per executive order 20-01, subject to funding, newly constructed state owned buildings shall be designed to be zero energy or zero energy-capable. As this is not new construction, renovations are not required to be zero-energy capable at this time. Design measures will be taken to reduce energy consumption as much as feasible within the scope of the renovation and budget.

The project is slated for LEED Silver certification in agreement with the state requirements.

This project is not required to meet the sustainable requirements and on-site renewable energy requirements of Section 7009 of Substitute House Bill 1102 Chapter 413 effective May 21, 2019 due to falling well under the threshold of \$10,000,000 in costs triggering this statute

The project will not increase greenhouse gas emissions.

## 4.E Further Study Needed

Identify problems that require further study. Evaluate identified problems to establish probable cost and risk.

**Electrical Capacity:** Design team shall evaluate the existing electrical capacity of electrical panels and determine if additional electrical services will be required.

**Masterplan:** A masterplan study for DCYF is anticipated to begin in quarter 4 of 2020. This should be reviewed and considerations given once complete to ensure support of and compliance with the masterplan.

**Geotech:** A Geotech report will be required to determine stormwater infiltration rates.

**Site Survey:** A complete site survey will be required to place outdoor recreation, ADA pathways, etc as well as to understand site utility location

**Population Projections:** DCYF is expected to release updated Juvenile Rehabilitation population projections in quarter 3 of 2020. This should be reviewed for program impacts.

## 4.F In Excess of Codes

Identify significant or distinguishable components, including major equipment and ADA requirements in excess of existing code.

No increased measures are anticipated at this time.

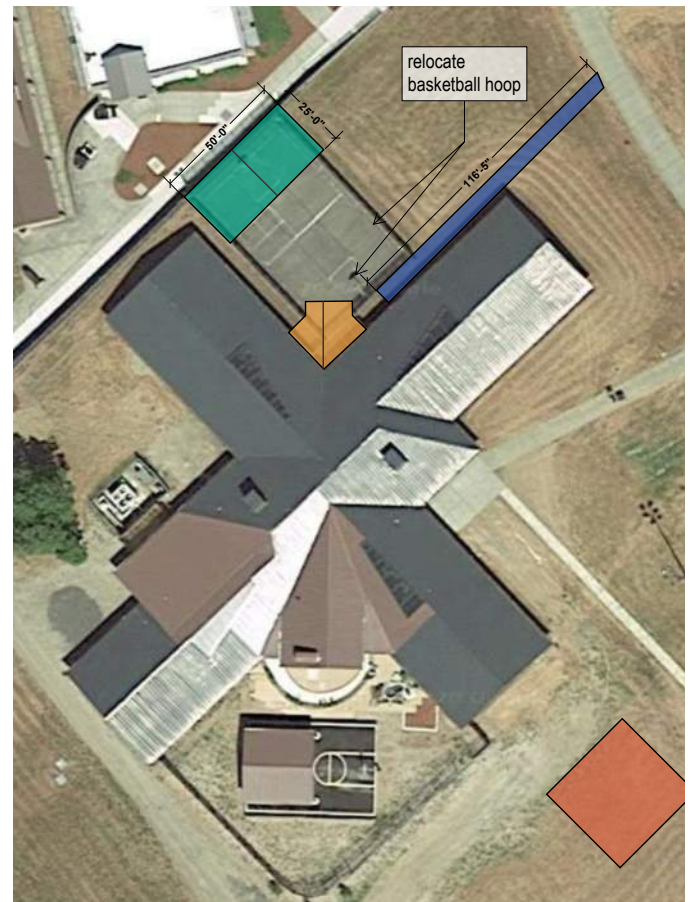
## 4.G IT Requirements

Identify planned technology infrastructure and other related IT investments that affect the building plans.

At this time, the most current known IT standards for the Agency are: State of Washington Department of Social and Health Services Enterprise Technology Telecommunications Infrastructure and cabling requirements for Capital Projects updated in 2018. It is believed that DCYF is in the process of pulling together standards for IT that will govern DCYF specific facilities. At the start of design, project team should acquire the most current IT standards from the Agency for applications to the design.

Assist Washington state agencies and the Office of the Chief Information Officer (OCIO) to assess the cost, complexity, and statewide significance of an anticipated information technology project to maintain consistency and help in establishing Biennial budgeting. This will include coordination with oversight of the (OCIO) in the following areas:

- Establish project estimated costs of the data infrastructure.
- Do a Risk/Severity assessment to determine if the project falls under 'major project' that requires oversight.
- If considered a major project, coordinate with the OCIO and submit project for a concept review to determine the project is consistent with the states IT strategic plan and with the agency's IT architecture.
- Obtain approval from OCIO as required to proceed with the project.



## 4.H Commissioning

Describe planned commissioning to ensure systems function as designed.

The building is over 5,000 square feet in area, which requires a minimum certification rating of LEED Silver. To achieve this, both Fundamental Commissioning, as well as Enhanced Commissioning will be provided on the project's mechanical, plumbing, electrical, and energy systems. This will be performed, in accordance with the LEED ratings system, by a Commissioning Authority.

During the Design Phase, an Owners Project Requirements (OPR) and a Basis of Design will be documented by the Commissioning Authority to ensure that the Owner's requirements are clear and are being met by the design documents. The design documents shall be periodically reviewed.

During the Construction Phase, the Commissioning Authority will ensure the construction meets both the design document requirements as well as the OPR. The Commissioning Authority shall provide (among other requirements):

- Review contractor submittals.
- Verify inclusion of systems manual requirements in construction documents.
- Verify inclusion of operator and occupant training requirements in construction documents.
- Verify systems manual updates and delivery.
- Verify operator and occupant training delivery and effectiveness.
- Verify seasonal testing.
- Review building operations 10 months after substantial completion.
- Develop an on-going commissioning plan.



Building Addition

Proposed laydown area options

Covered Recreation Area

Path

## 4.I Future Work

Describe any future phases or other facilities that will affect this project.

### Future Masterplan

DCYF plans to begin a new master planning study starting in quarter 3 of 2020. Once complete, this will inform future work slated for the Green Hill School campus.

### Technology Upgrades

The campus is slated to receive a VOIP system for telephones in the near future. Baker North renovations are planned to accommodate and be compatible with both the current hard-lined telephone system and the future upgrades.

### Building Construction

Currently the facility is designing an indoor recreation building to replace the existing facility as well as construction of outdoor recreation fields. These are slated to be located south of the entry and visitation building at the entry to campus. This project is expected to be complete before the construction renovation work begins at Baker North. The renovation, design, or construction of the recreation building are not anticipated to impact the work at Baker North in any way.

## 4.J Delivery Method Options

Identify and justify the proposed project delivery method.

The recommended delivery method is DESIGN BID BUILD. The renovations are straightforward, construction is not planned to be phased, and Baker North will be unoccupied at time of construction.

Project management within the agency will include the following:

- Department of Enterprise Services  
Project Manager: Dave Lohrengel
- Department of Children, Youth and Families  
Capital Program Administrator: Michael Poier  
Capital Projects Budget Manager: Trent Phillips

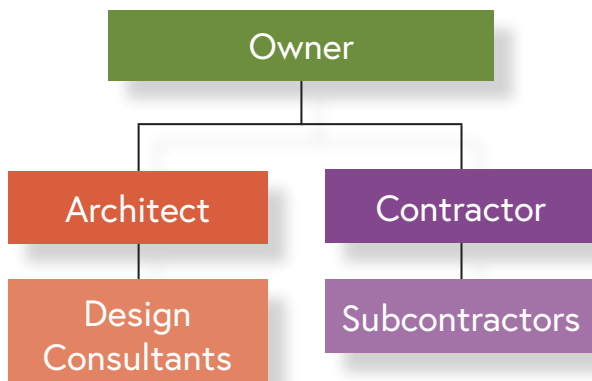
DES and DCYF currently have the staffing capabilities to oversee and manage this project. DES and DCYF will coordinate directly with the staff and administration at Green Hill School for campus feedback, coordination, and participation in the design and construction where required.

Typical consultants outside of the agency and hired by the agency typically include:

- Land survey
- Utility locating service
- Commissioning agent
- Testing and balance service
- Materials testing and special inspection service
- General contractor

The following consultants will be required and are typically under contract to the architect operating as prime consultant:

- Structural engineer
- Mechanical and plumbing engineer
- Electrical, low voltage, & security systems engineer
- Civil engineer
- Landscape architect
- Cost Estimator
- LEED consultant



## 4.K Project Schedule

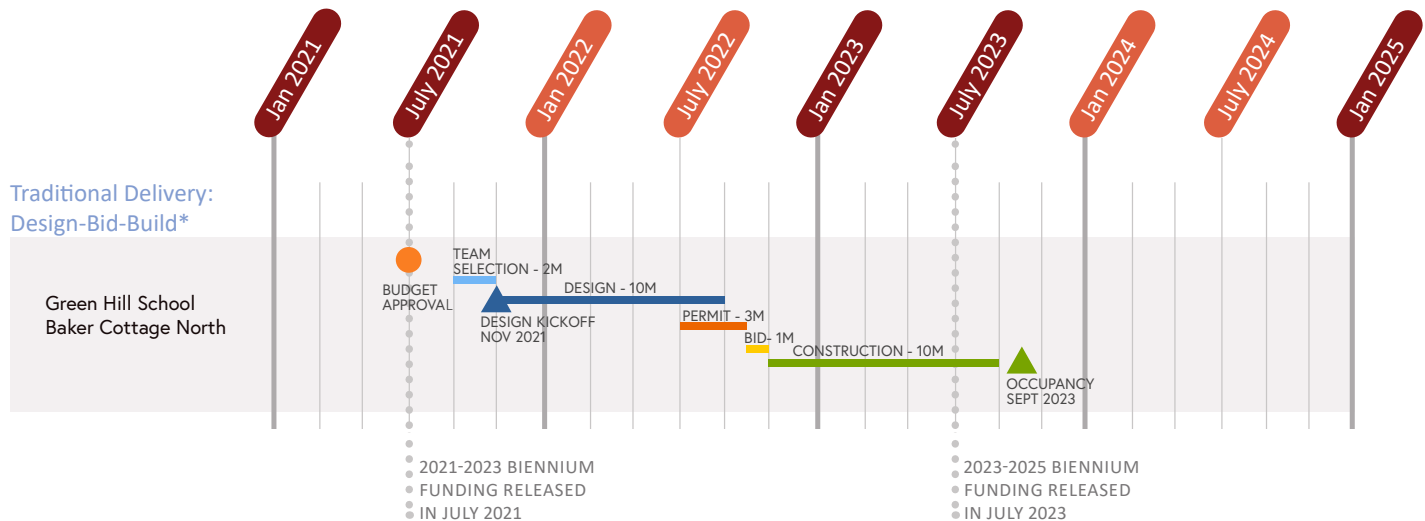
Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy and full operation. Incorporate value-engineering analysis and constructibility review into the project schedule, as required by RCW 43.88.110(5)(c). Describe factors that may delay the project schedule. Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule. Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are a part of the process.

The schedule below indicates design and construction durations for Green Hill School Baker North assuming the project is fully funded in the 2021-2023 Biennium for both design and construction. This assumes fees are allocated in July 2021 and design team selection can begin soon afterward with award occurring before the end of the calendar year 2021. Project schedule incorporates

time for value-engineering and constructibility review. A stakeholder and user group similar to that implemented for this pre-design report is anticipated. Community meetings are not anticipated. We anticipate Green Hill School would be the first project to begin design and complete construction, since its programming and capacity are best suited to accommodate the increase in older youth admitted to Juvenile Rehabilitation as a result of SB6160.

Traditional Design-Bid-Build delivery method is expected to span approximately 23 months, with Design Kickoff beginning in November 2021 and occupancy expected September 2023. It is recommended that the design team begin consultation with the City of Chehalis at the end of schematic design or approximately 10-12 weeks into the start of the design schedule.

### Conceptual Schedule of Renovation Alternative for DCYF Juvenile Rehabilitation secure residential renovations



\* Assumes funding for design and construction are released together. Design or construction funds issued for biennium need to be spent within same biennium.





## **5.0 Budget Analysis of Preferred Alternative**



## 5.A Cost Estimate

Major assumptions used in preparing the cost estimate. Summary table of Unifomat Level II cost estimates.

Total project cost is estimated at \$6,750,000. See appendix for complete C100. Following pages contain the estimated maximum allowable construction cost with escalation as well as major assumptions and exclusions.

Completed: 6/14/20  
Revised: 6/15/20

### **BAKER NORTH RENOVATION** **AT GREEN HILL SCHOOL DCYF**

Page 1 of 6

#### **GENERAL SCOPE:**

This is a pre-design estimate and review to renovate an existing Baker North Cottage at Green Hill School. The north portion of the cottage to be renovated is figured blocked off with fully constructed temporary walls when improvement work takes place, allowing the contractor full project access there, while the balance of south the building remains in user operation. Actual ground breaking is targeted to start in November of 2022, over a year from the time of this estimate. The estimate includes full construction costs, including premiums for hazardous material abatement. However, sales tax and other soft costs are excluded. The project is figured to be LEED Silver certified and administrated. The current design scope and costs are preliminary, and should be treated as such. A 10% design contingency has been added to the estimate bottom-line, along with another 5.5% premium for a good 16 months of anticipated construction cost escalation.

#### **INCLUDED:**

New roof drain lines & infiltration to accommodate building & shed roof run-off.  
Site improvements covering about 10,000 SF.  
A modified outdoor recreation area with new fencing, canopy and storage units.  
New sidewalks and pathway, and a \$25,000 allowance for new site lighting.  
Landscaping restoration, mostly seeded lawn with irrigation coverage.  
Temporary framed and sheathed walls between occupied & renovated spaces.  
Fireproofing of new structural steel at addition and new operable wall header.  
Premiums for new interior CMU partitions, with thickened slab edges underneath.  
Selective demolition of existing building interiors.  
Some new 12 gage detention grade interior doors and tempered glazing.  
Epoxy and some other hardened type interior finishes.  
Provisions for detention grade furniture, furnishings & equipment.  
700 SF of new expanded Dayroom and Group room addition space.  
Revamping of existing fire sprinkler protection system, extensions and upgrades.  
Mostly new mechanical & electrical building systems, with a new chiller.  
Door access control, monitoring and other low voltage specialty systems.  
Contractor's general requirements, overhead & profit, B & I, and B & O tax.  
LEED Silver administration and certification premiums.  
Compounded 10.0% preliminary design & 5.0% cost escalation contingencies.

#### **EXCLUDED:**

Domestic water, fire sprinkler, sanitary or power services--existing adequate.  
Significant changing of existing & proposed finish grades, or new retaining walls.  
Any new main building canopies or extended roof overhangs of significance.  
Any new expanded parking areas.  
Any rain gardens or large planters--limited to a few new trees & small planters.  
New outside screen walls, or fencing beyond new outdoor recreation area.  
Significant structural upgrades to existing foundation or roof structures.  
Supplemental furred insulation at existing exterior walls.  
Any hazardous material abatement premiums--assumed to be not applicable.  
Replacement of all existing exterior & interior doors & glazing--most remain.  
Replacement of roofing or exterior wall & soffit finishes beyond tie-in work.  
Commercial kitchen equipment--casework & residential appliances only.  
Premiums for working in an occupied space--building to be vacated by user.  
Window treatment--none in order to avoid vandalism.  
A back-up emergency generator system--existing reused.  
Fiber optic upgrades--existing assumed to be adequate.  
Sales tax, permits, third party testing, and design fees.  
An owner change order contingency.  
Third party M & E commissioning premiums--by owner if applicable.

		BUDGETARY COST ESTIMATE			
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	REMARKS
<b>ESTIMATE SUMMARY:</b> (Includes Contractor G.R, OH&P, B&I, B&O Tax & LEED Silver Administration Mark-Ups, No Sales Tax.)					
SITE WORK.	1.24	LS	\$354,340	\$439,382	See Page 2 for Estimate Summary Breakdown.
BUILDING RENOVATION.	1.24	LS	\$2,515,666	\$3,119,426	" " " " " " " " " " " " " "
NEW CONDITIONED BUILDING SPACE.	1.24	LS	\$434,260	\$538,482	" " " " " " " " " " " " " "
<b>ESTIMATE MACC:</b>				<b>\$4,097,290</b>	
10.0% Preliminary Design Contingency:	10.0%	LS	\$4,097,290	\$409,729	
5.5% Construction Cost Escalation:	5.5%	LS	\$4,507,019	\$247,886	
<b>ESTIMATE MACC with CONTINGENCY:</b>				<b>\$4,754,905</b>	

See the following page for an Estimate Summary Breakdown

Completed: 6/14/20  
Revised: 6/15/20

**BAKER NORTH RENOVATION  
AT GREEN HILL SCHOOL DCYF**

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BUDGETARY COST ESTIMATE					REMARKS
PROJECT COMPONENT	Quantity	Unit	Estimate Cost	With G.C. Mark-Ups	
<b>ESTIMATE SUMMARY BREAKDOWN:</b> (Includes Contractor G.R, OH&P, B&I, B&O Tax, Silver LEED Mark-Ups, No Sales Tax.)					
<b>SITE WORK:</b>					<b>\$439,382</b>
2.1) Site Demolition & Prep.	1.24	LS	\$18,200	\$22,568	See Page 3 for detailed cost breakdowns.
2.2) Erosion Control & Earthwork.	1.24	LS	\$45,900	\$56,916	" " " " " " " " " " " "
2.3) Supplemental Storage Drainage.	1.24	LS	\$16,900	\$20,956	" " " " " " " " " " " "
2.4) New Site Lighting.	1.24	LS	\$25,000	\$31,000	" " " " " " " " " " " "
2.5) Site Fixtures & Specialties.	1.24	LS	\$180,500	\$223,820	" " " " " " " " " " " "
2.6) Hardscape Paving.	1.24	LS	\$28,640	\$35,514	" " " " " " " " " " " "
2.7) Limited Landscaping & Irrigation.	1.24	LS	\$39,200	\$48,608	" " " " " " " " " " " "
<b>BUILDING RENOVATION:</b>					<b>\$3,119,426</b>
3.1) Interior Building Demolition & Prep.	1.24	LS	\$148,600	\$184,264	See Pages 4 & 5 for detailed cost breakdowns.
3.2) Framing & Structural Upgrades.	1.24	LS	\$190,100	\$235,724	" " " " " " " " " " " "
3.3) Interior Rough-In.	1.24	LS	\$161,716	\$200,528	" " " " " " " " " " " "
3.4) Interior Finishes.	1.24	LS	\$332,700	\$412,548	" " " " " " " " " " " "
3.5) Building Specialties & Casework.	1.24	LS	\$172,500	\$213,900	" " " " " " " " " " " "
3.6) Furniture, Fixtures & Equipment.	1.24	LS	\$127,400	\$157,976	" " " " " " " " " " " "
3.7) Fire Sprinkler Protection.	1.24	LS	\$39,100	\$48,484	" " " " " " " " " " " "
3.8) Building Mechanical.	1.24	LS	\$737,100	\$914,004	See Page 5 for detailed cost breakdowns.
3.9) Building Electrical.	1.24	LS	\$606,450	\$751,998	" " " " " " " " " " " "
<b>NEW BUILDING ADDITION:</b>					<b>\$538,482</b>
4.1) Dayroom and Group Room Expansion.	1.24	LS	\$434,260	\$538,482	See Page 6 for detailed cost breakdowns.
<b>ESTIMATE MACC:</b>	1.00	LS	\$3,304,266	<b>\$4,097,290</b>	
10.0% Preliminary Design Contingency:	10.0%	LS	\$4,097,290	\$409,729	
5.5% Construction Cost Escalation:	5.5%	LS	\$4,507,019	\$247,886	
<b>ESTIMATE MACC with CONTINGENCY:</b>				<b>\$4,754,905</b>	

**NOTES:**

The above Estimate Summary Breakdown costs include a 24% general contractor's mark-up, intended to cover general requirements, overhead & profit, bond & insurance, B & O tax, and Silver LEED administration. In addition, a 10% preliminary design and another 5.5% construction cost escalation contingency has been added to the estimate bottom-line.

For: KMB Architects

PRE-DESIGN ESTIMATE

From: Bill Acker Consulting Services

Completed: 6/14/20  
Revised: 6/15/20

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**BAKER NORTH RENOVATION  
AT GREEN HILL SCHOOL DCYF**

	Quantity	Unit	\$\$\$	Est. Cost	
<b>SITE WORK:</b>					
Temporary construction fencing.	480.00	LF	\$2.50	\$1,200.00	Around building addition, recreation court & new path areas.
Add for a further enclosed staging area.	1.00	LS	\$2,000.00	\$2,000.00	A special fenced-in onsite area.
Remove existing fencing.	300.00	LF	\$10.00	\$3,000.00	Around existing recreation area, assumed to be 10' or higher.
Remove portions of hardscape paving.	3,200.00	SF	\$2.50	\$8,000.00	Removal of sidewalks & asphalt for a new addition and canopy.
Miscellaneous onsite demolition & pick-up.	1.00	LS	\$4,000.00	\$4,000.00	Allowance, assumed to be minor.
<b>2.1) Site Demolition and Prep:</b>					<b>\$18,200.00</b>
Mobilization.	1.00	LS	\$5,000.00	\$5,000.00	Allowance for mass earthwork.
Silt fencing.	300.00	LF	\$6.00	\$1,800.00	Allowance around most of recreation court perimeter.
Temporary construction entry.	1,500.00	SF	\$2.00	\$3,000.00	Allowance at site improvements entry.
Erosion control maintenance & pick-up.	1.00	LS	\$7,000.00	\$7,000.00	Allowance, assumed to be relatively minor.
Onsite clearing & strippings at improvements.	10,000.00	SF	\$1.50	\$15,000.00	Allowance at new improvement areas.
Onsite cuts, fills & rough grading.	380.00	CY	\$20.00	\$7,600.00	Assumes very little grade change, 10,000 SF x 1' average.
Minor soft spot overexcavation premiums.	50.00	CY	\$40.00	\$2,000.00	Allowance to adjust for subgrade inconsistencies.
Earthwork pick-up and coordination.	1.00	LS	\$4,500.00	\$4,500.00	Allowance.
<b>2.2) Erosion Control &amp; Earthwork:</b>					<b>\$45,900.00</b>
New underground footing & roof drains.	180.00	LF	\$55.00	\$9,900.00	At addition perimeter & new shed, with CO's & DS connectors.
New supplemental infiltration trench.	1.00	LS	\$5,000.00	\$5,000.00	Allowance, location, size and details to be addressed.
Storm coordination & pick-up.	1.00	LS	\$2,000.00	\$2,000.00	A minor allowance.
<b>2.3) Supplemental Storm Drainage:</b>					<b>\$16,900.00</b>
New supplemental site lighting.	1.00	LS	\$25,000.00	\$25,000.00	Allowance, fixture type and layout to be determined.
<b>2.4) New Site Lighting:</b>					<b>\$25,000.00</b>
New canopy shelter, complete.	1,400.00	SF	\$80.00	\$112,000.00	A simple open free-standing steel structure with metal roofing.
Outdoor athletic equipment.	1.00	LS	\$10,000.00	\$10,000.00	Allowance for basketball hoops, post anchors, stationary equip.
Provide pre-manufactured storage sheds.	2.00	Ea	\$2,000.00	\$4,000.00	10' x 10' Rubbermaid type sheds, each assembled onsite.
Screen walls & equipment pad.	1.00	LS	\$10,000.00	\$10,000.00	Allowance for a new outside mechanical chiller.
Miscellaneous site specialties.	1.00	LS	\$4,000.00	\$4,000.00	Allowance for possible trash receptacles, signage, misc.
Perimeter no-climb fencing.	270.00	LF	\$150.00	\$40,500.00	Assumed to be 12' high recreation area perimeter.
<b>2.6) Site Fixtures &amp; Specialties:</b>					<b>\$180,500.00</b>
Site concrete backhoe trenching.	16.00	Hr	\$160.00	\$2,560.00	Allowance for limited concrete site & finish grade pick-up work.
Onsite concrete sidewalks & paving.	1,000.00	SF	\$10.00	\$10,000.00	At new addition and a new paved path to campus.
New asphalt paving at recreation court.	2,400.00	SF	\$5.00	\$12,000.00	Assumes a 3" mix over 6" crushed base.
General site clean-up & pick-up.	6.00	MD	\$680.00	\$4,080.00	Allowance.
<b>2.7) Hardscape Paving:</b>					<b>\$28,640.00</b>
Restore existing lawn areas.	5,900.00	SF	\$2.00	\$11,800.00	At modified and disturbed improvement areas, topsoil & seed.
Add for some new planting premiums.	1.00	LS	\$8,000.00	\$8,000.00	Allowance, assumed to be limited.
Add for new trees.	4.00	Ea	\$400.00	\$1,600.00	Allowance, assumed to be native type.
New irrigation, complete.	5,900.00	SF	\$2.00	\$11,800.00	Within landscape restoration areas, tied to an existing system.
Landscaping maintenance & pick-up work.	1.00	LS	\$6,000.00	\$6,000.00	Allowance, including closeout and maintenance.
<b>2.8) Limited Landscaping &amp; Irrigation:</b>					<b>\$39,200.00</b>
<b>SITE WORK:</b>					
	10,000.00	SF	\$35.43	\$354,340	
Add 24% for General Contractor Mark-Ups:	10,000.00	SF	\$43.94	\$439,382	

A total of about 10,000 SF of onsite improvements are figured to be cleared and graded, primarily to accommodate a new small building addition expansion, a modified outdoor recreation area, a new walkway path & sidewalks, and some limited landscape improvements. In addition, a \$25,000 allowance is included for new site lighting to be laid out. Provisions are included for temporary construction fencing, a more secure staging area, and minor erosion control measures. While the north portion of the Baker Cottage is figured to be vacated by the user when building renovation work takes place there, the south portion of Baker and the rest of the campus beyond site improvements remains occupied and in full operation.

Existing & proposed grades hardly change, and the only new outside utility work are some new roof and footing storm drains at new roofs, and an allowance for a French drain type infiltration trench. The modified outdoor recreation area receives all new perimeter no-climb fencing, partial replacement of existing asphalt paving, a simple 1,400 SF stand-alone canopy shelter, and two fixed basketball hoops, volleyball & pickleball anchors, some stationary exercise equipment, and two small Rubbermaid type storage sheds. Provisions are also included for 1,000 SF of new concrete sidewalks, a chiller pad & screen walls, and some minor site specialties. No new fencing or gates are figured beyond the modified recreation perimeter. Landscaping includes restoring areas disturbed by new work, mostly consisting of topsoil and seeded lawn, with irrigation coverage assumed to tie into an existing adjoining system. Minor new tree and planter premiums are included as well.

For: KMB Architects

**PRE-DESIGN ESTIMATE**

From: Bill Acker Consulting Services

Completed: 6/14/20  
Revised: 6/15/20

**BAKER NORTH RENOVATION  
AT GREEN HILL SCHOOL DCYF**

Page 4 of 6

	Quantity	Unit	\$\$\$	Est. Cost	
<b>BUILDING RENOVATION:</b>					
Full-height temporary construction walls.	1,200.00	SF	\$15.00	\$18,000.00	Full height framed with plywood and batts, 120 LF x 10'.
General interior demolition.	7,800.00	SF	\$9.00	\$70,200.00	Removal of finishes, fixtures, and a general gut at tie-in areas.
Floor slab prep.	7,800.00	SF	\$3.00	\$23,400.00	Allowance in remodel areas, with some slab cut & patch.
Add to cut embedded conduits & wires.	1.00	LS	\$30,000.00	\$30,000.00	Allowance in existing slabs; includes repairs as well.
Clean-up, coordination & pick-up.	1.00	LS	\$7,000.00	\$7,000.00	Allowance to accommodate interior building demo work.
\$19.05	3.1)	<b>Interior Building Demolition &amp; Prep:</b> \$148,600.00			
New interior gage wall framing.	2,400.00	SF	\$6.50	\$15,600.00	Primarily in existing group areas, 200 LF x 12' average.
Add for possible CMU wall premiums.	2,400.00	SF	\$35.00	\$84,000.00	At new interior walls, with gage furring at one side.
Add to possible cut in thickened slab edges.	200.00	LF	\$100.00	\$20,000.00	Allowance to support new interior CMU partitions.
Ceiling framing replacement & reinforcement.	2,500.00	SF	\$7.00	\$17,500.00	Allowance, mostly around new partitions in existing areas.
Add for operable wall header support.	40.00	LF	\$150.00	\$6,000.00	Allowance between Dayroom & Group rooms, with columns.
Add for interior soffit framing.	160.00	LF	\$50.00	\$8,000.00	In large room areas and misc, assumed to be minimized.
Misc. framing blocks, anchors, tie-ins, pick-up.	7,800.00	SF	\$5.00	\$39,000.00	Allowance for the entire renovated area.
\$24.37	3.2)	<b>Framing &amp; Structural Upgrades:</b> \$190,100.00			
Interior sound batt insulation.	3,000.00	SF	\$0.90	\$2,700.00	Allowance in new and some existing interior wall furring.
Finished GWB walls.	2,160.00	SF	\$2.60	\$5,616.00	At new furring over CMU, mostly Hi-Impact, 180 LF x 12' avg.
Add for MDF wainscot.	600.00	SF	\$3.00	\$1,800.00	Allowance in portions of large shared spaces.
GWB ceilings.	2,000.00	SF	\$2.80	\$5,600.00	At restored and modified areas.
Add for interior GWB wrapped soffits.	800.00	SF	\$4.00	\$3,200.00	In large room areas and misc, 160 LF x 5' average.
GWB patches, restoration and pick-up.	7,800.00	SF	\$5.00	\$39,000.00	Allowance, primarily at existing cut, damaged & tie-in surfaces.
Detention grade interior walk door assemblies.	14.00	Ea	\$4,800.00	\$67,200.00	12 gage at new interior partitions and a few replaced doors.
Add for interior glazed wall relites.	6.00	Ea	\$3,000.00	\$18,000.00	Allowance in group areas and misc.
Standard interior walk door assemblies.	6.00	Ea	\$1,600.00	\$9,600.00	Allowance at new interior partitions and a few replaced doors.
Building sealants & firestopping.	12.00	MD	\$750.00	\$9,000.00	Allowance for the entire renovated building.
\$20.73	3.3)	<b>Interior Rough-In:</b> \$161,716.00			
Paint interior CMU, GWB & MDF surfaces.	16,000.00	SF	\$1.50	\$24,000.00	At existing interior walls & ceilings, less epoxy finishes.
Painting touch-up & pick-up.	30.00	MD	\$800.00	\$24,000.00	Allowance at hollow metal, trim, touch-up and misc.
Add for painted graphics premiums.	1.00	LS	\$9,000.00	\$9,000.00	Allowance in Day and Group rooms.
Epoxy flooring finishes.	2,200.00	SF	\$16.00	\$35,200.00	In Sleeping, Shower and Toilet areas.
Epoxy wall finishes in sleeping areas.	6,120.00	SF	\$15.00	\$91,800.00	In Sleeping rooms, 680 LF x 9'.
Epoxy wall finishes in wet areas.	1,980.00	SF	\$15.00	\$29,700.00	In Toilet & Shower areas, 220 LF x 9'.
Epoxy ceiling finishes.	500.00	SF	\$16.00	\$8,000.00	In Toilet & Shower areas.
Acoustic wall & ceiling panels.	1.00	LS	\$24,000.00	\$24,000.00	Allowance in Day and Group rooms.
Carpet, vinyl flooring & rubber base.	1,600.00	SF	\$5.00	\$8,000.00	Allowance of staff, utility and shared space areas.
Resilient flooring & base in wet areas.	4,000.00	SF	\$10.00	\$40,000.00	Mondo type flooring in Kitchen, corridor spaces and misc.
Interior trim & pick-up.	7,800.00	SF	\$5.00	\$39,000.00	Allowance for wallcoverings, accents, trim and misc.
\$42.65	3.4)	<b>Interior Finishes:</b> \$332,700.00			
Occupancy specialties.	1.00	LS	\$26,000.00	\$26,000.00	Allowance for fire extinguishers, signage, TA's, misc.
Miscellaneous building specialties.	1.00	LS	\$5,000.00	\$5,000.00	Marker boards, corner guards, fixed knick-knacks & misc.
Operable wall.	400.00	SF	\$85.00	\$34,000.00	STC rated & motorized between Day & Group, 40 LF x 10'.
Laundry machines & residential appliances.	10.00	Ea	\$1,200.00	\$12,000.00	Allowance in Laundry and Kitchen.
Kitchen casework.	50.00	LF	\$400.00	\$20,000.00	Uppers & lowers, plastic laminate faced with Corian type tops.
Staff Station casework.	50.00	LF	\$450.00	\$22,500.00	Custom base units, plastic laminate faced w/ Corian type tops.
Dayroom & Large Group casework.	1.00	LS	\$30,000.00	\$30,000.00	Allowance for fixed bench seats and misc.
Add for fixed shelving.	1.00	LS	\$8,000.00	\$8,000.00	Allowance in storages, possibly Laundry and misc.
Casework pick-up & coordination.	1.00	LS	\$15,000.00	\$15,000.00	Allowance, including what is not yet addressed.
\$22.12	3.9)	<b>Building Specialties &amp; Casework:</b> \$172,500.00			
Fixed furniture in Sleeping rooms.	20.00	LS	\$2,500.00	\$50,000.00	Floor attached detention bed, desk and stool.
Fixed 'spider' tables with seats in Dayroom.	8.00	Ea	\$2,800.00	\$22,400.00	Allowance, each one piece attached to floor slab.
Furniture in Group and Dayroom.	1.00	LS	\$30,000.00	\$30,000.00	Allowance, specifics to be defined.
Allowance for additional furniture & pick-up.	1.00	LS	\$25,000.00	\$25,000.00	Allowance for what might not yet be addressed.
\$16.33	3.6)	<b>Furniture, Fixtures &amp; Equipment:</b> \$127,400.00			
Interior wet fire sprinkler coverage revamped.	7,800.00	SF	\$4.50	\$35,100.00	Partial removal, retrofitting & upgrade of existing system.
Add for riser & infrastructure upgrades.	1.00	LS	\$4,000.00	\$4,000.00	Allowance primarily for modifications as deemed necessary.
\$5.01	3.7)	<b>Fire Sprinkler Protection:</b> \$39,100.00			
<b>BUILDING RENOVATION, continues on the next page:</b>					

For: KMB Architects

PRE-DESIGN ESTIMATE

From: Bill Acker Consulting Services

Completed: 6/14/20  
Revised: 6/15/20

**BAKER NORTH RENOVATION  
AT GREEN HILL SCHOOL DCYF**

Page 5 of 6

	Quantity	Unit	\$\$\$	Est. Cost	
<b>BUILDING RENOVATION:</b>					
(Continued from the previous page.)					
Mobilization, submittals & closeout.	7,800.00	SF	\$3.00	\$23,400.00	Allowance for mechanical work.
Mechanical demolition.	7,800.00	SF	\$5.00	\$39,000.00	Most existing mechanical gets removed and/or abandoned.
Mechanical insulation.	7,800.00	SF	\$2.50	\$19,500.00	At both new piping and ducts.
New building plumbing, complete.	7,800.00	SF	\$22.50	\$175,500.00	Allowance, includes new detention grade fixtures.
Hydronic HVAC system.	7,800.00	SF	\$48.00	\$374,400.00	A new chiller, VAV boxes & piping; existing air handler reused.
Add for DDC mechanical controls.	7,800.00	SF	\$10.50	\$81,900.00	A proprietary system that ties into campus system.
Air & water balance and base commissioning.	7,800.00	SF	\$3.00	\$23,400.00	Allowance, with basic testing & start-up.
\$94.50			3.8) Building Mechanical:	\$737,100.00	
Mobilization, submittals & closeout.	7,800.00	SF	\$5.00	\$39,000.00	Allowance for electrical work.
Electrical demolition.	7,800.00	SF	\$3.00	\$23,400.00	Nearly all existing electrical gets removed or abandoned.
Building lighting.	7,800.00	SF	\$12.50	\$97,500.00	All new LED lighting with mostly vandal resistant fixtures.
Add for lighting controls.	7,800.00	SF	\$5.50	\$42,900.00	With a centralized touch screen controller.
Convenience power.	7,800.00	SF	\$7.00	\$54,600.00	All replaced, controlled from Staff Station.
Panels & distribution.	7,800.00	SF	\$8.00	\$62,400.00	Allowance, most is new.
Generator connection.	7,800.00	SF	\$4.50	\$35,100.00	USP & distribution upgrades; existing generator reused.
Phone & data systems.	7,800.00	SF	\$5.50	\$42,900.00	Allowance, relocated and upgraded.
Intercom & PA systems.	7,800.00	SF	\$5.25	\$40,950.00	Allowance to upgrade existing systems.
Fire alarm system.	7,800.00	SF	\$5.50	\$42,900.00	Replaced with a new addressable system.
Access control.	7,800.00	SF	\$5.50	\$42,900.00	Allowance, controlled from Staff Station.
CCTV.	7,800.00	SF	\$6.50	\$50,700.00	With cameras, controlled from Staff Station.
Electrical pick-up & coordination.	7,800.00	SF	\$4.00	\$31,200.00	Allowance.
\$77.75			3.9) Building Electrical:	\$606,450.00	
<b>BUILDING RENOVATION:</b>	7,800.00	SF	\$322.52	\$2,515,666	
Add 24% for General Contractor Mark-Ups:	7,800.00	SF	\$399.93	\$3,119,426	

Full height temporary construction walls with plywood sheathing and sound insulation batts are figured to be constructed between occupied south Baker Cottage spaces and the north portion to be renovated. The total interior renovation space is figured to cover 7,800 SF, not counting another 700 SF of addition extension at group areas adjacent to the outdoor recreation area. Existing partitions, doors and glazing beyond the new addition tie-in mostly remain in place. No hazardous material abatement or structural upgrades of significance in the existing spaces is figured. A \$30,000 allowance is included to cut existing electrical wires & conduits in and under existing building slabs and then repair.

New interior partitions in existing spaces are for now figured to be reinforced CMU, possibly with gage furring and GWB & MDF wainscot finishes at one side. In addition, new thickened slab edges are figured to be cut into existing slabs to support the weight of new CMU partitions. Also included is an allowance for a header to support a new operable wall.

No re-roofing, other than a roof overbuild tie-in figured in the Item #4.1 addition work, replacement of existing exterior doors and/or windows, or upgrades at existing exterior masonry and soffits is figured in the estimate scope. Only minor repair and restoration work is figured at new addition tie-ins in Item #4.1.

Most interior doors, windows and glazing in existing renovated spaces remain in place. Most new doors and frames are figured to be detention grade, consisting of 12 gage hollow metal, with detention type finish hardware in the interiors. New glazing, both insulated and interior single-pane, is typically figured to be tempered, but not laminated or bullet resistant.

New GWB is limited to over new interior furred walls, interior ceilings, and patches & restoration as required. Some MDF wainscot, acoustic panels and other feature accents are included in portions of shared spaces. Epoxy finishes are included in Sleeping, Shower & Toilet areas. Carpet is in offices, and heat welded seam resilient safety flooring in the Kitchen and most shared areas.

New toilet accessories are figured to be light detention grade. Provisions for residential appliances are included, but no commercial kitchen equipment or window treatment is figured. An STC rated and motorized operable wall is included. New casework is typically figured to be plastic laminate faced over plywood cores, and receive Corian type countertops. Some fixed shelving is included in Storages. Allowances are included for light detention grade furniture in Sleeping, Dayroom and other shared spaces.

The existing fire sprinkler protection system is figured to be revamped and upgraded. All existing plumbing and most HVAC gets replaced, which includes mostly new light detention type plumbing fixtures, a new chiller and VAV units. An existing air handling unit is figured to be reused. New mechanical controls are proprietary that tie into the existing campus system.

Electrical systems for the most part get replaced, with some light detention grade fixture, trim and feature premiums included. Provisions are included for a door access controls, phone & data, intercom & public address, fire alarm and closed circuit TV & monitoring systems. While an existing onsite generator is figured to be reused, an allowance for power distribution modifications and upgrades to the generator are included.

For: KMB Architects

**PRE-DESIGN ESTIMATE**

From: Bill Acker Consulting Services

Completed: 6/14/20  
Revised: 6/15/20

**BAKER NORTH RENOVATION  
AT GREEN HILL SCHOOL DCYF**

Page 6 of 6

	Quantity	Unit	\$\$\$	Est. Cost	
<b>NEW BUILDING ADDITION:</b>					
Prep existing building for new addition.	1.00	LS	\$5,000.00	\$5,000.00	Minor demo, tie-in and prep work at existing building.
Foundation concrete backhoe trenching.	16.00	Hr	\$160.00	\$2,560.00	Allowance to accommodate new addition foundation.
New slab-on-grade foundation, complete.	700.00	SF	\$28.00	\$19,600.00	Perimeter stem walls on ftg's, slab w/ base & thickened edges.
New CMU walls, exterior & interior.	840.00	SF	\$32.00	\$26,880.00	At addition portion, 8", 70 LF x 12' average.
New steel framed roof structure assembly.	900.00	SF	\$26.00	\$23,400.00	Over addition, with overhangs & steel decking.
Remove portions of existing roofing assembly.	1,000.00	SF	\$6.00	\$6,000.00	Allowance to accommodate addition roof tie-in overbuild.
Add for roof overbuild structure, complete.	1,000.00	SF	\$30.00	\$30,000.00	An extension of existing metal roofing with rigid insulation.
Fireproofing of new structural steel.	1,900.00	SF	\$7.00	\$13,300.00	Allowance at addition structural steel and possibly new decking.
New roofing assembly with rigid insulation.	1,900.00	SF	\$42.00	\$79,800.00	At both new addition and overbuild tie-in.
Add for roofing tie-ins & restoration.	1.00	LS	\$8,000.00	\$8,000.00	Premium to tie-in new roofing assembly with new.
New exterior aluminum storefront glazing.	200.00	SF	\$80.00	\$16,000.00	At new addition entrance to recreation area, 20 LF x 10' avg.
Add for exterior walk doors.	2.00	Ea	\$3,200.00	\$6,400.00	Assumes a double door at new addition entrance to rec area.
New CMU veneer assembly, complete.	720.00	SF	\$32.00	\$23,040.00	At addition exterior walls, 60 LF x 12' average.
Add for masonry tie-in & header premiums.	3.00	LS	\$2,800.00	\$8,400.00	Allowance at existing exterior & interior building walls.
Interior furring assemblies, complete.	840.00	SF	\$12.00	\$10,080.00	Framing, batts and Hi-Impact GWB, 70 LF x 12' average.
Ceiling & flooring finishes.	700.00	SF	\$20.00	\$14,000.00	Carpet & Mondo flooring and GWB ceiling.
Interior trim & specialty premiums.	700.00	SF	\$12.00	\$8,400.00	Allowance in addition extension.
Miscellaneous building specialties.	1.00	LS	\$1,500.00	\$1,500.00	Marker boards, corner guards, fixed knick-knacks & misc.
Furniture in Group and Dayroom.	1.00	LS	\$15,000.00	\$15,000.00	Allowance, specifics to be defined.
Fire sprinkler protection coverage extension.	700.00	SF	\$7.00	\$4,900.00	All new, tied into existing fire sprinkler system.
Addition plumbing, complete.	700.00	SF	\$20.00	\$14,000.00	All new, tied into existing plumbing system.
HVAC coverage extension and controls.	700.00	SF	\$65.00	\$45,500.00	An extension of new HVAC system & controls.
Building electrical, complete.	700.00	SF	\$75.00	\$52,500.00	An extension of new building electrical to addition.
\$620.37					
	4.1)	Dayroom and Group Room Expansion:		\$434,260.00	
<b>NEW BUILDING ADDITION:</b>	700.00	SF	\$620.37	\$434,260	
Add 24% for General Contractor Mark-Ups:	700.00	SF	\$769.26	\$538,482	

About 700 SF of addition extension is figured at the existing north Dayroom and Group Room area that leads to an adjacent outdoor recreation area. A conventional slab-on-grade foundation with tie-ins is figured. Both exterior and interior finishes and systems are intended to replicate those of the existing renovated building the addition ties into. This includes a new framed overbuild where the new roof ties into the existing. Conventional aluminum storefront glazing and doors are figured at an exterior addition. An allowance for some supplemental detention grade furnishings is included.

For: KMB Architects

**PRE-DESIGN ESTIMATE**

From: Bill Acker Consulting Services

## 5.B Proposed Funding

Identify the fund sources and expected receipt of the funds

This projects seeks full funding sourced from the State Capital Budget for both design and construction in the 2021-2023 biennium budget.

## 5.C Operations and Maintenance

Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs).

### i. MAINTENANCE AND OPERATIONS

This portion of the building is currently not occupied and therefore does not receive maintenance with the exception of standard filter replacement. If the building were to be occupied, it is anticipated that it would require only standard maintenance in keeping with the other cottages on campus. All costs of repair, deferred maintenance, and upgrading electronic systems to provide functionality are included in the proposed renovation cost estimate. It is not anticipated that the maintenance budget will be affected by this project. The campus will be able to continue to operate with current personnel.

Operationally, the project will increase the number of staffing positions required for management and supervision of the youth. The building will require assigned staff 24/7. Due to the COVID-19 pandemic priorities, an FTE was not able to be provided at this time. This information is available upon request through DCYF.

The systems that are being proposed are high efficiency systems that if maintained should save the campus money on energy operating costs throughout the current mechanical, electrical and plumbing systems over the building's lifespan. Normal wear and tear on the systems is to be expected but with proper maintenance will remain minor.

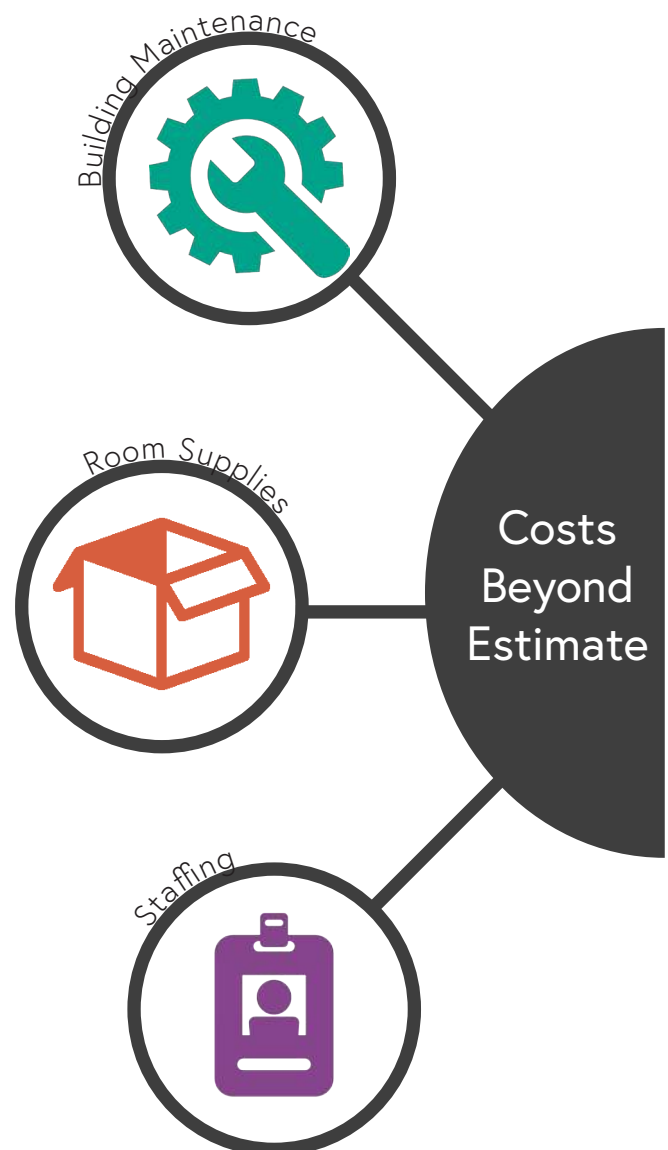
### ii. FIVE BIENNIA OF CAPITAL COSTS

Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repair, replacement and maintenance. To be provided by DCYF upon request.

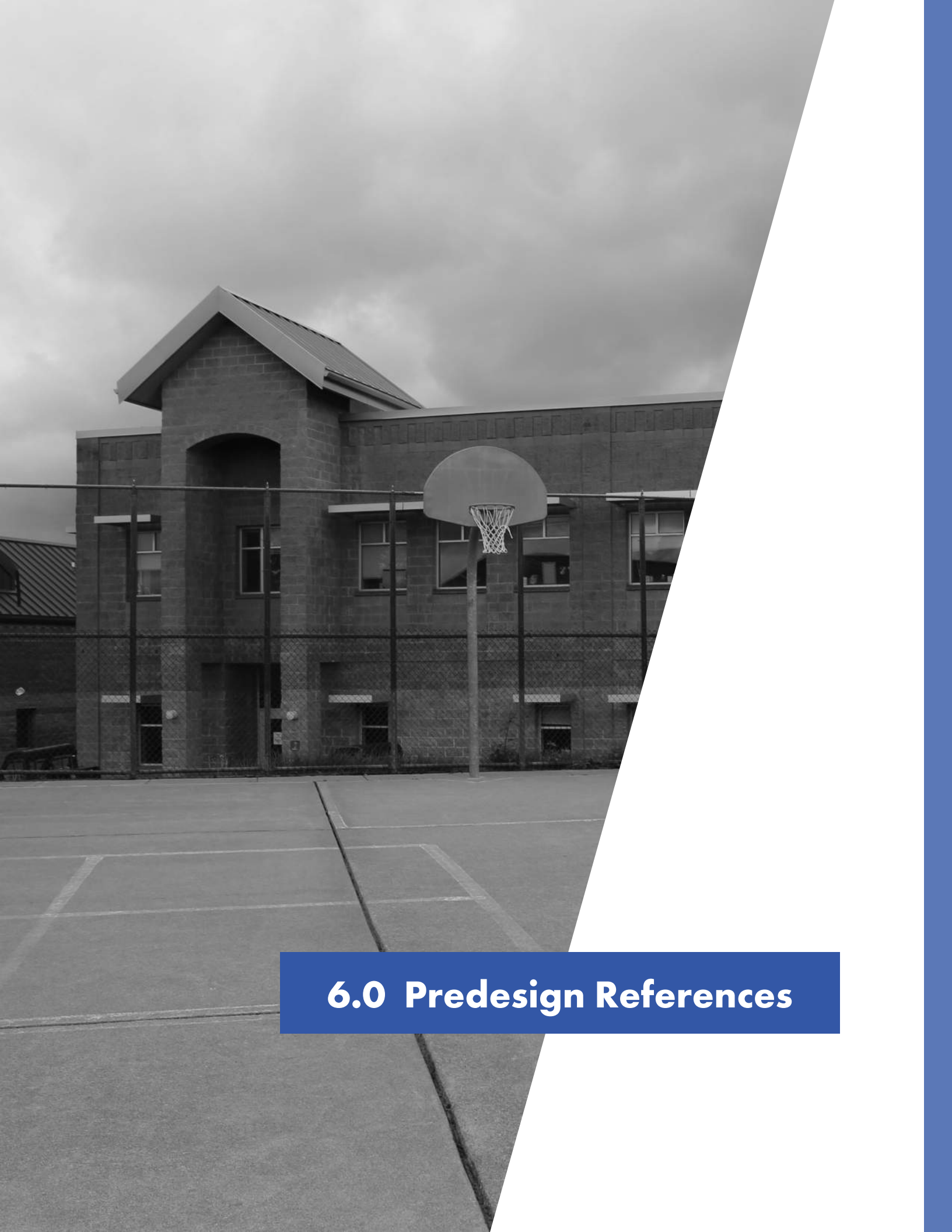
## 5.D Furniture, Fixtures, and Equipment

Clarify whether furniture, fixtures, and equipment are included in the project budget.

Furniture, fixtures, and equipment are included in the cost estimate. Furniture in youth areas is detention grade and furniture in staff areas is commercial grade. Built-in furniture items such as shelving and casework are included in the construction cost. Staff station computers and electronic controls associated with cameras, door controls, intercom and lighting are in the construction costs. Televisions, phones, and markerboards are included in the FFE budget. Bed, clothing, and shower linens are not included in the FFE budget. Copiers, printers, and computers in staff offices are not included in the FFE budget. Gaming consoles and games are not included in the FFE budget.







## **6.0 Predesign References**




## 6.0 Predesign References

- A. OFM Approved Modified Predesign Checklist
- B. OFM Predesign Glossary
- C. Letter from Department of Archaeology and Historic Preservation
- D. C-100 Budget Form
- E. Stakeholder Group
- F. Meeting Minutes- Available Upon Request
  - Programming Meeting #1 - April 24, 2020
  - Programming Meeting #2 - May 01, 2020
  - Maintenance and Facilities Meetings - May 14, 2020
  - Programming Meeting #3 - May 15, 2020



## Reference A. OFM Approved Modified Predesign Checklist

		
<b>DCYF: Green Hill School, Baker Cottage (North)</b> <b>DES project number: 2020-735</b> <b>Deliverable Due Date: June 30, 2020</b>		
<b>Detailed Scope Description</b>		
Task ID	OFM Full Predesign Description	Modified Predesign Project Specific Scope
0.00	<b>Cover Letter / Table of Contents</b>	Section Subtotal Includes overall organization of document
1.00	<b>Executive Summary</b>	Section Subtotal
	Summarize the problem, opportunity or program requirements; alternatives considered; preferred alternative; and why that alternative was selected. Include basic project cost information.	Included in full
2.00	<b>Problem Statement</b>	Section Subtotal
a	Identify problem, opportunity or program requirement	
	Identify the problem, opportunity or program requirement addressed by the project and how it will be accomplished	All available background information assumed to come from DCYF and documentation required. Assumed to rely heavily upon the 2019 JR study and descriptions in this predesign are brief and referring back to previous study for additional information.
b	Identify and explain the statutory requirements that drive the project's operational programs	
	Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations. Include anticipated caseload projections (growth or decline) and assumptions, if applicable	All available background information assumed to come from DCYF and documentation required. Assumed to rely heavily upon the 2019 JR study and descriptions in this predesign are brief and referring back to previous study for additional information.
c	Explain the connection between the agency's mission, goals, objectives and strategic plan	
	Explain the connection between the agency's mission, goals and objectives; statutory requirements; and the problem, opportunity or program requirement.	All available background information assumed to come from DCYF and documentation required. Assumed to rely heavily upon the 2019 JR study and descriptions in this predesign are brief and referring back to previous study for additional information.
d	Describe what is needed to solve the problem	
	Describe in general terms what is needed to solve the problem.	All available background information assumed to come from DCYF and documentation required. Assumed to rely heavily upon the 2019 JR study and descriptions in this predesign are brief and referring back to previous study for additional information.
e	Include prior planning study efforts	
	Include any relevant history of the project, including previous predesigns or budget funding requests that did not go forward to design or construction.	All available background information assumed to come from DCYF and documentation required. Assumed to rely heavily upon the 2019 JR study and descriptions in this predesign are brief and referring back to previous study for additional information.
3.00	<b>Analysis of Alternatives</b>	Section Subtotal
a	Describe all alternatives that were considered, including the preferred alternative. Alternatives may include collocation, renovation, leased space, purchase, new construction or other options explored. Include the following:	Assumes only 2 alternatives in lieu of 3 options under consideration at this time: No action Renovation only
b	A no action alternative. Describe the programmatic outcome of not addressing the problem or opportunity. Do the problems which were driving the project still exist? Are the necessary technologies available to meet the project objectives within the proposed project funding and timeline?	Assumes background research has already been completed and is being provided by DCYF and this portion of report is primarily an analysis of existing information and documentation; drawing conclusions from documentation provided. Assumes no engineering consultant time included and that assumptions are drawn from documentation provided. Relies heavily upon Jan 2019 Washington Juvenile Capacity Study for Juvenile Confinement Facilities Expansion study

c	The advantages and disadvantages of each alternative. Include a high-level summary table with your analysis that compares the alternatives, including the anticipated cost for each alternative.	Assuming (1) alternative to do nothing in lieu of (2): Renovation of existing facility to provide habitable space to meet program as developed with stakeholder group. Owner has studied existing building previously and has known issues with facility. This assumes Owner can provide background knowledge on maintenance, operations, and facility from the maintenance and operations group to reduce investigative time including what systems need replacement, any water intrusion issues, operational issues, and general maintenance concerns. This also assumes drawings are available for all disciplines to be able to review current HVAC, electrical, security, envelope, and structural conditions to reduce site visit requirements including travel and field assessment.
d	Cost estimates for each alternative	Assumes full LCCM for 1 renovation option only.
	Provide enough information so decision makers have a general understanding of the project costs.	
	To compare the life cycle cost of different alternatives, use OFM's Life Cycle Cost Model (RCW 39.35B.050). Include the completed life cycle cost summary as an appendix. OFM's Life Cycle Cost Model is the only authorized tool for the completion of this section because it provides a standard methodology and set of assumptions for all capital projects.	
	Note: Do not confuse OFM's Life Cycle Cost Model with two other life cycle cost analysis tools maintained by the state. Although these tools are not required for predesign, they are required early in the design phase. Consider incorporating these tools in predesigns where the focus of the project is the replacement of building systems.	
	OFM's Life Cycle Cost Tool (LCCT) is used for the design of facilities with an area of 5,000 square feet or greater (Executive Order 13-03) to demonstrate how the building design contributes to energy efficiency and conservation. The tool, instructions and training webinars are available at OFM's forms webpage.	
	The DES Energy Program's Energy Life Cycle Cost Analysis (ELCCA) is required for projects over 25,000 square feet (RCW 39.35.050). This tool evaluates energy-using systems such as heating, cooling, lighting, building envelope and domestic hot water.	
e	Schedule estimates for each alternative. Estimate the start, midpoint and completion dates.	Included in full for one pre-design alternative.
4.A	<b>Detailed Analysis of Preferred Alternative: Program</b>	<b>Section Subtotal</b>
a	Describe the preferred project alternative in detail, including the following:	Included in full.
b	Nature of space. How much of the proposed space will be used for what purpose (e.g., office, lab, conference, classroom, etc.)	Assumes (3) half day programming meetings with staff and stakeholders, analysis of information, and program creation with full prep for meetings. Assumed to be run remotely at this time; excludes travel
c	Occupancy numbers (Code, type and number of OCC)	Included in full.
d	Basic configuration of the building, including square footage and the number of floors	Assumes only 1 test fit of program in existing building, additional space requirements TBD.
e	Space needs assessment (program) Compare the project space needs to currently recognized space planning guidelines and identify the guidelines used. These may include:	Assumes discussion with DCYF on anticipated growth of campus due to JR25 with assessment of information (2019 JR study) and revision as required.
	a) OFM's Statewide Space Use Guidelines. b) For four-year higher education facilities, Facilities Evaluation and Planning Guide. c) For community and technical colleges, the Facilities Coding Manual for space use coding, the Capital Analysis Model (Chapter 6, appendix H), and Policy Manual and Guidelines on Utilization of Classrooms and Lab	
4.B	<b>Detailed Analysis of Preferred Alternative: Site Analysis</b>	<b>Section Subtotal</b>
	Identify site studies that are completed or under way including:	Assumes analysis of only the existing site for the 'renovation only' alternative. This assumes it is a renovation in place with possible addition pending programming. Excludes analysis of any other site or location on campus.
a	Location	Assumes site is identified and cursory addition placement review only is required should program exceed existing facility footprint (not anticipated).
b	Building footprint and its relationship to adjacent facilities and site features. Provide an aerial view, sketches of the building site and basic floor plans.	Included.
c	Stormwater requirements	Assumes looking into jurisdiction stormwater requirements to determine if requirements will be triggered and if so, what they would entail for budgeting purposes.
d	Ownership of the site and any acquisition issues	Excluded. Assumes no ownership issues and land is already under possession. Statement can be included stating as such but no work associated with this

e	Easements and setback requirements	Assumes owner informs of any easements or setbacks as property is already known and developed. Research excluded, documentation of existing to be provided by Owner and included for the record in the deliverable.
f	Potential issues with the surrounding neighborhood, during construction and ongoing once operational	Very minimal due to being on site of an exiting campus.
g	Utility extension or relocation issues	Assumes one for one renovation doesn't require utility work. cursory review only. Include quick existing facility capacity review to ensure infrastructure is capable of supporting loading per program requirements.
h	Potential environmental impacts	Assumes SEPA will not be triggered. Assumes no known issues due to likelihood of staying within footprint or very minimal expansion.
	(i) Green space and natural amenities that need to be preserved or accorded special treatment. (ii) Required or potential site mitigation, including history of possible contamination. (iii) Wetlands and shoreline impacts, including a wetlands delineation and the need to fill wetlands. (iv) Shoreline jurisdiction issues (v) Requirements for the State Environmental Policy Act, National Environmental Policy Act or an environmental impact statement. (vi) Other regulatory requirements, such as hydraulic project approval and U.S. Army Corps of Engineers permits.	
i	Parking and access issues, including improvements required by local ordinances, local road impacts and parking demand.	Excluded: Due to existing development and renovation only, assumes no impact and no investigation at this time.
j	Impact on surroundings and existing development with construction lay-down areas and construction phasing.	This analysis to look only at available space on site for construction access and laydown. Assumes no phasing.
<b>4.C</b>	<b>Detailed Analysis of Preferred Alternative: Master Plan</b>	<b>Section Subtotal</b>
	Identify whether the proposed project is consistent with applicable long-term plans (such as the Thurston County and Capitol campus master plans and agency or area master plans) as required by RCW 43.88.110.	Assumes Owner to provide any and all master plan information for design team review and documentation only; no investigative work. cursory review of WA-JR capacity study from Jan 2019 only. Please advise if there are other documents.
<b>4.D</b>	<b>Detailed Analysis of Preferred Alternative: Regulatory</b>	<b>Section Subtotal</b>
	Consistency with other laws and regulations. Provide documentation that indicates the preferred option is consistent with the following:	List of applicable laws and regulations and high level impacts. Include look into AHJ and applicable edition of code. DAHP to be addressed early in process.
	i. High-performance public buildings (Chapter 39.35D RCW). All state-funded buildings 5,000 square feet or more must be designed, constructed and certified to the LEED silver standard at a minimum. ii. The state efficiency and environmental performance executive order requires some newly constructed state-owned (including lease purchase) buildings be designed as net zero energy or net zero energy capable, and include consideration of net embodied carbon. In situations where a cost-effective, net zero energy building is required and not yet technically feasible, buildings must be designed to exceed the current state building code for energy efficiency to the greatest extent possible (Executive Order 18-01). iii. Greenhouse gas emissions reduction policy (RCW 70.235.070), including consideration of: a) The state's limits on the emissions of greenhouse gases established in RCW 70.235.020; b) Statewide goals to reduce annual per capita vehicle miles traveled by 2050, in accordance with RCW 47.01.440, except that the agency shall consider whether project locations in rural counties, as defined in RCW 43.160.020, will maximize the reduction of vehicle miles traveled; and c) Applicable federal emissions reduction requirements. iv. Archeological and cultural resources (Executive Order 05-05 and Section 106 of the National Historic Preservation Act of 1966). Consult with the Department of Archaeology and Historic Preservation (DAHP), the Governor's Office of Indian Affairs (GOIA) and affected tribes, as appropriate. A letter from DAHP on the impact of potential sites on cultural resources must be included as an appendix. v. Americans with Disabilities Act implementation (Executive Order 96-04). vi. Compliance with planning under Chapter 36.70A RCW, as required by RCW 43.88.0301. vii. Information required by RCW 43.88.0301(1). viii. Other codes or regulations	
<b>4.E</b>	<b>Detailed Analysis of Preferred Alternative: Further Study</b>	<b>Section Subtotal</b>
	Identify problems that require further study (for example, environmental contaminants, traffic studies or IT or other infrastructure challenges). Evaluate identified problems to establish probable costs and risk.	Included.
<b>4.F</b>	<b>Detailed Analysis of Preferred Alternative: Above and Beyond</b>	<b>Section Subtotal</b>
	Identify significant or distinguishable components, including major equipment and ADA requirements in excess of existing code.	Included.

<b>4.G</b>	<b>Detailed Analysis of Preferred Alternative: IT</b>	<b>Section Subtotal</b>
	Identify planned technology infrastructure and other related IT investments that affect the building plans. Contact the Office of the Chief Information Officer (OCIO) to coordinate IT requirements. Some projects may require oversight by OCIO and the Technology Services Board. See RCW 43.88.092 and 43.105.205 (for higher education).	Included.
<b>4.H</b>	<b>Detailed Analysis of Preferred Alternative: Commissioning</b>	<b>Section Subtotal</b>
	Describe planned building commissioning to ensure systems function as designed	Included.
<b>4.I</b>	<b>Detailed Analysis of Preferred Alternative: Future Work</b>	<b>Section Subtotal</b>
	Describe any future phases, plans or other facilities that will affect this project	Assumes future campus work information and development plans for rest of campus to be provided by owner and this is just analysis of that information as it relates to this project; does not assume creation of future plans.
<b>4.J</b>	<b>Detailed Analysis of Preferred Alternative: Delivery Method</b>	<b>Section Subtotal</b>
	Project management and delivery method alternative considered	Assumes building area for construction is not occupied; remaining half is occupied so assessment of interruption of services needs to be considered.
	<p>i. Identify the proposed project delivery method, such as design-build, phased construction, general contractor/construction manager (GC/CM) or conventional design/bid/build. Justify the proposed method of project delivery.</p> <p>(a) For design-build, link the justification to RCW 39.10.300 for uses, RCW 39.10.320 requirements and RCW 39.10.330 for process.</p> <p>(b) For GC/CM, link the justification to the requirements in RCW 39.10.340 for uses, RCW 39.10.350 for requirements and RCW 39.10.360 for process.</p> <p>ii. Describe how the project will be managed within the agency:</p> <p>a) Identify roles and responsibilities for the project.</p> <p>b) Identify in-house staffing requirements for the proposed project.</p> <p>c) Identify consultant services, DES resources or additional staff needed to manage the project.</p>	
<b>4.K</b>	<b>Detailed Analysis of Preferred Alternative: Schedule</b>	<b>Section Subtotal</b>
	<b>f Schedule</b>	Included.
	<p>i. Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy and full operation.</p> <p>ii. Incorporate value-engineering analysis and constructability review into the project schedule, as required by RCW 43.88.110(5)(c).</p> <p>iii. Describe factors that may delay the project schedule, such as an environmentally sensitive location, possible presence of archaeological or historical assets, or possible contamination of the site or buildings undergoing renovation.</p> <p>iv. Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule.</p> <p>v. Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are part of the process.</p>	
<b>5.00</b>	<b>Project Budget Analysis for the Preferred Alternative</b>	<b>Section Subtotal</b>
	<b>a Cost Estimate. Provide the following:</b>	Assumes only 1 estimate for 1 scheme
	i. Major assumptions used in preparing the cost estimate	
	ii. Summary table of Uniformat II Level 2 cost estimates	
	iii. The C-100 in Excel	
	<b>b Proposed Funding</b>	Assumes this is provided by Owner and this is review and documentation for report only
	i. Identify the fund sources and expected receipt of the funds.	
	If alternatively financed, such as through a Certificate of Participation (COP), provide the projected debt service and fund source. Include the assumptions used for calculating finance terms and interest rates. For assistance, please contact Wendy Kancianich at the Office of the State Treasurer at 360-902-9022 or email.	
	<b>c Facility operations and maintenance requirements</b>	Assumes this is the outcome of a conversation with owner and facilities and documentation of that.
	i. Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs).	
	ii. Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repairs, replacement and maintenance.	

d	Furniture, fixtures and equipment. Clarify whether furniture, fixtures and equipment are included in the project budget. If not included, explain why	Included.
<b>6.00</b>	<b>Considerations to include in predesign</b>	<b>Section Subtotal</b>
a	Hazardous Material/Mold - Determine if past reports exist. Must ensure construction and design budgets are created with knowledge of work to be done.	
b	DAHP letter and discussion required early on.	
c	Review RCW as it relates to Net Zero/Net Zero Ready.	
<b>7.00</b>	<b>Meetings</b>	<b>Meetings assumed to be conducted in video conference calls and are included in above line items</b>
<b>8.00</b>	<b>Report Preparation</b>	
a	Final Report QC	



## Reference B: OFM Predesign Glossary

### APPENDIX B: GLOSSARY

**Acquisition** – This type of project includes the acquisition of land, structures and buildings. These are fixed assets that have no relationship to the addition or improvement to, or the repair or replacement of, existing fixed assets. Examples of an acquisition are the purchase of a tract of land or a building.

**Alternate Financing** – Proposals that cover a wide range of financial contracts that call for the development or use of space by state agencies through a contractual arrangement with a developer or financing entity. Financing may involve the sale of debt obligations (certificates of participation, or COPs, through the State Treasurer) or funding from a private developer. Title to the property involved may transfer to the state either upon exercise of an option or at the termination of the contract.

**Constructability Review** – An independent consultant or contractor determines if a project can be physically built as designed. This is to reduce construction change orders and claims. This review should be conducted at 75–95 percent completion of the construction documents.

**Construction Management (CM)** – Involves a contractual arrangement in which an owner employs an agent/consultant called a construction manager to coordinate and manage all the construction trades. The additional management expertise is usually used on larger, more complex construction projects. However, an owner on a smaller project may acquire a construction manager for his or her construction expertise to act as the “eyes and ears” for the owner on the project.

**Consultant** – A person or entity which provides advice or services to an agency/institution.

**Contractor** – A person, firm or corporation who or which, in the pursuit of an independent business undertakes or submits a bid to construct, alter, repair, add to, subtract from, improve, move or demolish any building, excavation or other structure, project, development or improvement attached to real estate or to do any part thereof.

**Design/Bid/Build** – A method of project delivery subject to provisions in Chapter 39.04 RCW in which the agency/institution contracts directly with a single entity responsible for the design of a project and competitively bids the construction services for the construction project.

**Design/Build** – A method of project delivery subject to provisions in Chapter 39.10 RCW in which the agency or institution contracts directly with a single entity that is responsible for both design and construction services for a construction project.

**Facility** – A structure with walls and a roof.

**Furniture, Fixture and Equipment (FF&E)** – The moveable furniture, fixtures or equipment that require no permanent connection to utilities or to the structure.

**General Contractor** – A contractor whose business operations require the use of more than two unrelated building trades or crafts whose work the contractor will superintend or do in whole or in part. A general contractor does not include an individual who does all work personally without employees or other specialty contractors as defined in this glossary. The terms “general contractor” and “builder” are synonymous.

**General Contractor/Construction Manager (GC/CM)** – A firm with which an agency or institution has selected and negotiated a guaranteed maximum allowable construction cost for a project. A competitive selection process is used through formal advertisement and competitive bid to provide services during the design phase that may include life cycle cost design considerations, value engineering, scheduling, cost estimating, constructability and alternative construction options for cost savings and sequencing of work. The GC/CM acts as the construction

manager and general contractor during the construction phase. The GC/CM process is subject to provisions in Chapter 39.10 RCW.

**LEED Silver Standard** – The U.S. Green Building Council leadership in energy and environmental design green building rating standard, referred to as silver standard.

**Life Cycle Cost** – The capital and operational cost of a construction item, system or building during its estimated useful life.

**Master Plan** – A document setting forth the concepts and guiding principles for development of campus facilities, landscaping and infrastructure.

**Midpoint of Construction** – Date midway between the commencement date and substantial completion date.

**Operations and Maintenance (O&M) Costs** – The costs of the regular custodial care and repair, annual maintenance contracts, utilities, maintenance contracts and salaries of facility staff performing O&M tasks. The ordinary costs required for the upkeep of property and the restoration required when assets are damaged but not replaced. Items under O&M include the costs of inspecting and locating trouble areas; cleaning and preventive work; replacement of minor parts; power; labor; and materials. O&M work is required to preserve or restore buildings, grounds, utilities and equipment to their intended running condition so they can be effectively used for their intended purpose.

**Phased Construction** – Construction that is split into multiple phases due to fund availability and/or occupancy issues, such as completing a renovation in an occupied building.

**Project Budget** – The sum established by the agency/institution that is available for the entire project, including the construction budget; acquisition costs; costs of furniture, furnishings and equipment; and compensation for professional services and all contingencies.

**Project Delivery System** – Method of how an owner plans to contract a project, such as design/bid/build, design/build, GC/CM, etc.

**Unifomat** – A system for classifying building products and systems by functional subsystem, such as substructure, superstructure or exterior closure.

**Value Engineering (VE)** – VE is a systematic, orderly approach to defining a facility's required function, verifying the need for the function and creating alternatives for providing the function at minimum life cycle cost. Value is the lowest life cycle cost to achieve the required function. VE is a problem-solving system that emphasizes the reduction of cost while maintaining the required quality and performance of the facility.

## Reference C: Letter from Department of Archaeology and Historic Preservation



Allyson Brooks Ph.D., Director  
State Historic Preservation Officer

May 20, 2020

Bill Ecker  
KMB Architects

In future correspondence please refer to:  
Project Tracking Code: 2020-05-03467  
Re: Green Hill Baker Cottage

Dear Bill Ecker:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP). The above referenced project has been reviewed on behalf of the State Historic Preservation Officer (SHPO) under provisions of Governor's Executive Order 05-05. Our review is based upon documentation contained in your communication.

We understand the Green Hill Baker Cottage proposed project to be in the pre-design phase, and therefore exempt from further 05-05 review. Should the construction phase of any of these projects become obligated with Washington State Capital funding, we will request the following, at a minimum, to begin 05-05 consultation:

- EZ-1 forms for any ground disturbing activities
- EZ-2 forms for any building or structures proposed for alterations that are 45 years in age or more

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer (SHPO) in conformance with Governor's Executive Order 05-05. Also, we appreciate receiving copies of any correspondence or comments from concerned tribes and other parties that you receive as you consult under 05-05. Should additional information become available, our assessment may be revised.

Thank you for the opportunity to review and comment. Please ensure that the DAHP Project Number (a.k.a. Project Tracking Code) is shared with any hired cultural resource consultants and is attached to any communications or submitted reports. If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Holly Borth". The signature is written in a cursive, flowing style.

Holly Borth  
Project Compliance Reviewer  
(360) 586-3533  
holly.borth@dahp.wa.gov

State of Washington • Department of Archaeology & Historic Preservation  
P.O. Box 48343 • Olympia, Washington 98504-8343 • (360) 586-3065  
www.dahp.wa.gov





## Reference D: C-100 Budget Form

STATE OF WASHINGTON AGENCY / INSTITUTION PROJECT COST SUMMARY <i>Updated July 2019</i>		
Agency	Department of Children, Youth, and Families	
Project Name	Green Hill School - Baker North Living Unit	
OFM Project Number	40000529	

Contact Information	
Name	Trent Phillips
Phone Number	360-951-0717
Email	<a href="mailto:trent.phillips@dcyf.wa.gov">trent.phillips@dcyf.wa.gov</a>

Statistics			
Gross Square Feet	8,100	MACC per Square Foot	\$497
Usable Square Feet	6,600	Escalated MACC per Square Foot	\$541
Space Efficiency	81.5%	A/E Fee Class	A
Construction Type	Detention/correctional	A/E Fee Percentage	13.31%
Remodel	Yes	Projected Life of Asset (Years)	30
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	3.18%	Higher Ed Institution	No
Sales Tax Rate %	8.20%	Location Used for Tax Rate	Chehalis
Contingency Rate	10%		
Base Month	June-20		
Project Administered By	DES		

Schedule			
Predesign Start	April-20	Predesign End	June-20
Design Start	November-21	Design End	October-22
Construction Start	October-22	Construction End	August-23
Construction Duration	10 Months		

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Project Cost Estimate			
Total Project	<b>\$6,218,805</b>	Total Project Escalated	<b>\$6,749,676</b>
		Rounded Escalated Total	<b>\$6,750,000</b>

**STATE OF WASHINGTON**  
**AGENCY / INSTITUTION PROJECT COST SUMMARY**

*Updated July 2019*

Agency	Department of Children, Youth, and Families	
Project Name	Green Hill School - Baker North Living Unit	
OFM Project Number	40000529	

**Cost Estimate Summary**

Acquisition			
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0

Consultant Services			
Predesign Services	\$0		
A/E Basic Design Services	\$406,849		
Extra Services	\$234,000		
Other Services	\$212,787		
Design Services Contingency	\$85,364		
<b>Consultant Services Subtotal</b>	<b>\$938,999</b>	<b>Consultant Services Subtotal Escalated</b>	<b>\$1,004,575</b>

Construction			
Construction Contingencies	\$402,729	Construction Contingencies Escalated	\$438,935
Maximum Allowable Construction Cost (MACC)	\$4,027,290	Maximum Allowable Construction Cost (MACC) Escalated	\$4,383,150
Sales Tax	\$363,262	Sales Tax Escalated	\$395,411
<b>Construction Subtotal</b>	<b>\$4,793,281</b>	<b>Construction Subtotal Escalated</b>	<b>\$5,217,496</b>

Equipment			
Equipment	\$145,000		
Sales Tax	\$11,890		
Non-Taxable Items	\$0		
<b>Equipment Subtotal</b>	<b>\$156,890</b>	<b>Equipment Subtotal Escalated</b>	<b>\$170,995</b>

Artwork			
Artwork Subtotal	\$21,916	Artwork Subtotal Escalated	\$21,916

Agency Project Administration			
Agency Project Administration Subtotal	\$0		
DES Additional Services Subtotal	\$0		
Other Project Admin Costs	\$0		
<b>Project Administration Subtotal</b>	<b>\$258,720</b>	<b>Project Administration Subtotal Escalated</b>	<b>\$281,979</b>

Other Costs			
Other Costs Subtotal	\$49,000	Other Costs Subtotal Escalated	\$52,715

**Project Cost Estimate**

Total Project	<b>\$6,218,805</b>	Total Project Escalated	<b>\$6,749,676</b>
		Rounded Escalated Total	<b>\$6,750,000</b>

STATE OF WASHINGTON		
AGENCY / INSTITUTION PROJECT COST SUMMARY		
Updated July 2019		
Agency	Department of Children, Youth, and Families	
Project Name	Green Hill School - Baker North Living Unit	
OFM Project Number	40000529	

**Cost Estimate Details**

Acquisition Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Purchase/Lease				
Appraisal and Closing				
Right of Way				
Demolition				
Pre-Site Development				
Other				
Insert Row Here				
ACQUISITION TOTAL	\$0	NA	\$0	

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## Cost Estimate Details

Consultant Services				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
<b>1) Pre-Schematic Design Services</b>				
Programming/Site Analysis	\$0			
Environmental Analysis	\$0			
Predesign Study				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.0454</b>	<b>\$0</b>	Escalated to Design Start
<b>2) Construction Documents</b>				
A/E Basic Design Services	\$406,849			69% of A/E Basic Services
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$406,849</b>	<b>1.0605</b>	<b>\$431,463</b>	Escalated to Mid-Design
<b>3) Extra Services</b>				
Civil Design (Above Basic Svcs)	\$20,000			
Geotechnical Investigation	\$8,000			
Commissioning	\$30,000			
Site Survey	\$6,000			
Testing	\$0			
LEED Services	\$70,000			
Voice/Data Consultant	\$15,000			
Value Engineering	\$10,000			
Constructability Review	\$20,000			
Environmental Mitigation (EIS)	\$0			
Landscape Consultant	\$20,000			
Security Electronics Consultant	\$20,000			
Special Inspections	\$15,000			
<b>Sub TOTAL</b>	<b>\$234,000</b>	<b>1.0605</b>	<b>\$248,157</b>	Escalated to Mid-Design
<b>4) Other Services</b>				
Bid/Construction/Closeout	\$182,787			31% of A/E Basic Services
HVAC Balancing	\$30,000			
Staffing				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$212,787</b>	<b>1.0899</b>	<b>\$231,917</b>	Escalated to Mid-Const.
<b>5) Design Services Contingency</b>				
Design Services Contingency	\$85,364			
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$85,364</b>	<b>1.0899</b>	<b>\$93,038</b>	Escalated to Mid-Const.
<b>CONSULTANT SERVICES TOTAL</b>	<b>\$938,999</b>		<b>\$1,004,575</b>	

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## Cost Estimate Details

Construction Contracts				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
<b>1) Site Work</b>				
G10 - Site Preparation	\$18,200			
G20 - Site Improvements	\$74,540			
G30 - Site Mechanical Utilities	\$0			
G40 - Site Electrical Utilities	\$20,000			
G60 - Other Site Construction	\$219,700			
General Requirements	\$90,042			
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$422,482</b>	<b>1.0758</b>	<b>\$454,507</b>	
<b>2) Related Project Costs</b>				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	\$16,900			
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$16,900</b>	<b>1.0758</b>	<b>\$18,182</b>	
<b>3) Facility Construction</b>				
A10 - Foundations	\$22,160			
A20 - Basement Construction	\$0			
B10 - Superstructure	\$248,780			
B20 - Exterior Closure	\$45,440			
B30 - Roofing	\$123,800			
C10 - Interior Construction	\$171,796			
C20 - Stairs	\$0			
C30 - Interior Finishes	\$355,100			
D10 - Conveying	\$0			
D20 - Plumbing Systems	\$189,500			
D30 - HVAC Systems	\$607,100			
D40 - Fire Protection Systems	\$44,000			
D50 - Electrical Systems	\$658,950			
F10 - Special Construction	\$259,700			
F20 - Selective Demolition	\$153,600			
General Conditions	\$707,982			
<b>Sub TOTAL</b>	<b>\$3,587,908</b>	<b>1.0899</b>	<b>\$3,910,461</b>	
<b>4) Maximum Allowable Construction Cost</b>				
<b>MACC Sub TOTAL</b>	<b>\$4,027,290</b>		<b>\$4,383,150</b>	

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<b>7) Construction Contingency</b>			
Allowance for Change Orders	\$402,729		
Other			
Insert Row Here			
<b>Sub TOTAL</b>	<b>\$402,729</b>	<b>1.0899</b>	<b>\$438,935</b>
<b>8) Non-Taxable Items</b>			
Other			
Insert Row Here			
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.0899</b>	<b>\$0</b>
<b>Sales Tax</b>			
<b>Sub TOTAL</b>	<b>\$363,262</b>		<b>\$395,411</b>
<b>CONSTRUCTION CONTRACTS TOTAL</b>	<b>\$4,793,281</b>		<b>\$5,217,496</b>
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### Cost Estimate Details

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment	\$75,000			
E20 - Furnishings	\$70,000			
F10 - Special Construction	\$0			
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$145,000</b>	<b>1.0899</b>	<b>\$158,036</b>	
<b>1) Non Taxable Items</b>				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.0899</b>	<b>\$0</b>	
<b>Sales Tax</b>				
<b>Sub TOTAL</b>	<b>\$11,890</b>		<b>\$12,959</b>	
<b>EQUIPMENT TOTAL</b>	<b>\$156,890</b>		<b>\$170,995</b>	

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### Cost Estimate Details

Artwork				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Project Artwork	\$21,916			0.5% of Escalated MACC for new construction
Higher Ed Artwork	\$0			0.5% of Escalated MACC for new and renewal construction
Other				
Insert Row Here				
<b>ARTWORK TOTAL</b>	<b>\$21,916</b>	<b>NA</b>	<b>\$21,916</b>	

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### Cost Estimate Details

Project Management				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$0	1.0899	\$281,979	
Additional Services				
DES/DCYF	\$258,720			
Insert Row Here				
<b>PROJECT MANAGEMENT TOTAL</b>	<b>\$258,720</b>			

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### Cost Estimate Details

Other Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Mitigation Costs				
Hazardous Material Remediation/Removal	\$0			
Historic and Archeological Mitigation	\$0			
Building Permits + Plan Review	\$44,000			
LEED	\$5,000			
<b>OTHER COSTS TOTAL</b>	<b>\$49,000</b>	<b>1.0758</b>	<b>\$52,715</b>	

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<b>C-100(2019)</b> <b>Additional Notes</b>
---

<b>Tab A. Acquisition</b>
<i>Insert Row Here</i>

<b>Tab B. Consultant Services</b>
Testing is referring to Hazardous Material review and testing required in design and preparation of abatement plans - none
Special Insepctions is referring to testing and special inspections required during construction
<i>Insert Row Here</i>

<b>Tab C. Construction Contracts</b>
<i>Insert Row Here</i>

<b>Tab D. Equipment</b>
<i>Insert Row Here</i>

<b>Tab E. Artwork</b>
<i>Insert Row Here</i>

<b>Tab F. Project Management</b>
<i>Insert Row Here</i>

<b>Tab G. Other Costs</b>
<i>Insert Row Here</i>

## Reference E: Stakeholder Group

Dave Lohrengel  
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dave.lohrengel@des.wa.gov

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Cynthia.blue@dcyf.wa.gov

Michael Smalley  
GHS Facility Maintenance and Operations  
michael.smalley@dcyf.wa.gov



## Reference F: Meeting Minutes

Available Upon Request:

Programming Meeting #1 - April 24, 2020  
Programming Meeting #2 - May 01, 2020  
Maintenance and Facilities Meeting - May 14, 2020  
Programming Meeting #3 - May 15, 2020

# **Green Hill School Baker North Cottage Predesign**

Department of Children, Youth, and Families  
Department of Enterprise Services

**DES Project 2020-735**

**June 2020**

Prepared by

